Inc.

THE MAGAZINE FOR GROWING COMPANIES

'HANDS ON'

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SPECIAL ISSUE: THE INC. 100

AMERICA'S FASTEST-GROWING SMALL PUBLIC COMPANIES

PLUS:

GOOD FORM: CUTTING HEALTH-CARE COSTS

COMPANY PROFILE: GROWING YOUR OWN KEY EMPLOYEES

FIRST PERSON: FATHERS AND SONS IN BUSINESS

THE ANATOMY OF A START-UP

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RESULTS FROM
FEBRUARY

The Inc. FaxPoll™

ARE YOU TOO BUSY TO BE SMART?

An alarmingly high percentage of top executives believe they don't have enough information to run their own companies.

HOW DO YOU SPEND MOST OF YOUR WORK TIME?

Managing people	54%
Selling	51%
Developing new ideas	44%
Putting out fires	41%
Negotiating deals	35%
Learning about your industry	23%
Day-to-day operations	15%
Learning to manage better	12%

HOW MUCH OF YOUR TIME DO YOU SPEND DEVELOPING NEW IDEAS?

About a quarter	47%
Very little	30%
Half	16%
More than half	6%
All	1%

It's surprising how many of you feel inadequate for your task. And what's really startling is how far up the corporate ladder the knowledge gap creeps. Thirty-one percent of owners and founders, 38% of CEOs and presidents, and 44% of top managers said they didn't know enough to run their companies effectively. Then again, as one of you said, "Does anyone really?" No matter what you do to try to keep abreast, "I am always behind and always over my head." That actually may provide some comfort to those of you who find your knowledge wanting. As one put it: "I thought I was the only one that felt I was losing control of my business and my mind."

61%

YES

DO YOU KNOW ENOUGH TO RUN YOUR COMPANY EFFECTIVELY?

No

39%

What does the confident businessperson's day look like? Well, those of you who feel on top of things spend more time than those who don't managing people (60% versus 47%) and negotiating deals (38% versus 30%), and less time selling (47% versus 58%) and putting out fires (36% versus 51%). Not surprisingly, those who think you know enough to run your businesses spend more time developing new ideas than those who don't (50% versus 36%). Overall, however, only 23% of you claimed to spend more than a quarter of your time on new ideas. "All resources, financial and managerial, are dedicated to survival in these difficult times" was a common refrain. Others suggested that might be a little shortsighted. "Current economic conditions have made planning absolutely necessary." Those whose companies are still in the start-up phase seem to have the least time for brainstorming. But, hey, don't knock it. According to one reader, "Putting out fires and developing new ideas are not competitors—a fire is a source of new ideas."

There are too many information sources competing for your attention, so you try to seek out specific, useful, cost-efficient sources of information. Magazines lead the list, while just as customized but more expensive sources like conferences, trade shows, and videos are used less frequently.

When we asked about the source of the biggest idea you had in the past year, the answers were predictable: yourself, customers, magazines, and employees, in that order. Other answers ranged from the disarmingly honest—desperation, a lawsuit, "I'm not sure I had any big ideas last year"—to the humorous: dreams, a rotisserie baseball league, and a conversation with a stripper. But possibly the most telling was the reader who said his biggest idea came from his wife: "We decided I should retire."

WHERE DO YOU GET MOST OF YOUR IDEAS?

Magazines	50%
My customers	46%
My employees	29%
Books	23%
My competitors	20%
Industry conferences	19%
Myself/brainstorming	16%
Trade shows	14%
My vendors	13%
My senior managers	13%
Newspapers	12%
Management conferences	9%
Larger companies	9%
Audiotapes	5%
Videotapes	1%

WHAT DO YOU MOST NEED TO KNOW MORE ABOUT?

Selling and marketing	53%
Finance/cash flow	48%
My competitors	35%
Managing people	35%
My industry in general	30%
Computer technology	28%
The economy in general	10%
The international economy	8%
Nonbusiness information	7%
Other	5%

Here again you focused on hands-on, practical information. Who's got the time to learn anything new when you're doing all you can just to stay afloat? You want to know what's going to help you right now with sales, cash flow, and managing your work force. And information on what your competitors are up to wouldn't hurt, either. Context seems to be less important to you; you're less interested in knowing more about the national or global economies or nonbusiness information. One of you aptly summed it up: "So much information, so little time."

—Christopher Caggiano

Note: Multiple responses account for total percentages above 100%.

THE INC. FAXPOLL™ IS SPONSORED BY XEROX

AMERICA'S FASTEST-GROWING SMALL PUBLIC COMPANIES

THE INC. 100

At a time when big-company layoffs have grabbed the headlines, it's useful to recall that the economy has yet to fall into a black hole and—barring a collision of the planet with Mars—won't. That circumstance owes not to the prospect of large companies healing themselves but to the relatively unknown companies that turn up on this list each year, sprouting like hardy perennials through the rubble of corporate America. A free-market economy, like nature, abhors a vacuum. The

The Average Inc. *100 Company*

	1987	*1991*
SALES	$4,110,790	$84,043,320
EMPLOYEES	132	896
PRODUCTIVITY*	$31,159	$93,799
PROFITABILITY†: 16%+	11	19
11%–15%	4	9
6%–10%	7	16
1%–5%	18	29
Break-even	3	1
Loss	57	26

**sales per employee* *† no. of companies*

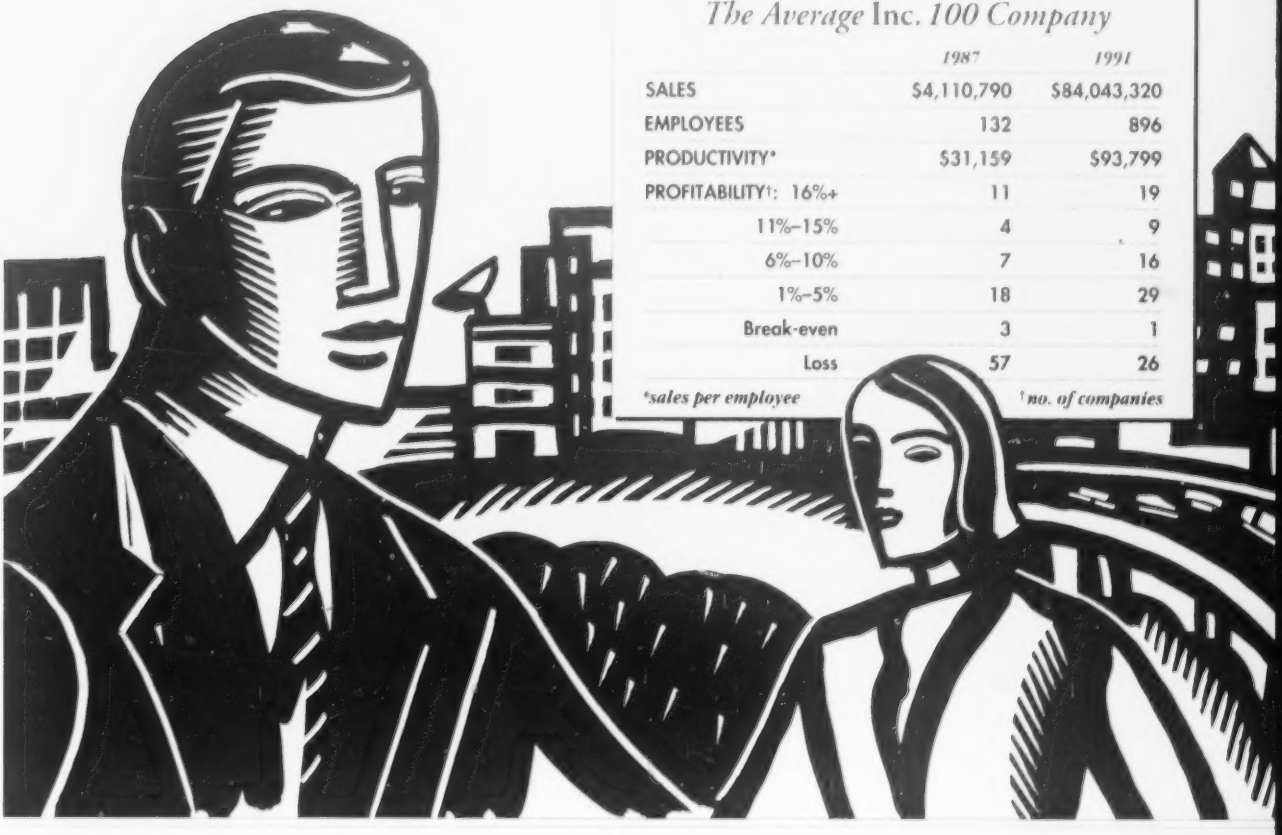


ILLUSTRATION: ANTHONY RUSSO

THE 13TH ANNUAL

INC. 100

more things change, well, the more companies doing new and interesting things are born. *Sic transit* the *Fortune* 500.

The *Inc.* 100 is more than a portrait of dynamic growth. It is also a leading indicator of change—technological, social, and regulatory—and the economic mutation that accompanies it. Take this year's number-one company, QVC Network, a retailer that couldn't have existed a decade ago, before cable-television and satellite technology were linked to produce some lucrative possibilities. QVC, which stands for quality, value, and convenience, is a televised shopping network that now appears in 45 million cable- and satellite-connected homes—24 hours a day, 364 days a year.

"This has become an accepted way of shopping," QVC's cofounder Mike Boyd says. "Our show is easy to watch, the presentation is soft sell, and the demonstration of products is informative." When QVC was founded in 1986, it had 20 competitors. Today the field has been winnowed to 2 major players—QVC and Home Shopping Network—and they recently leaked word of a possible "business combination."

QVC, just five years old and well on its way to annual sales of $1 billion, now adds 100,000 new users each month—and 60% of those people will turn into repeat buyers. Technological change in the form of digital compression, which will give cable companies the ability to broadcast up to 10 channels in the same space through which they currently send one, will further boost growth. That could turn QVC into an electronic mall, with viewers able to flip from shoes to cosmetics to lingerie.

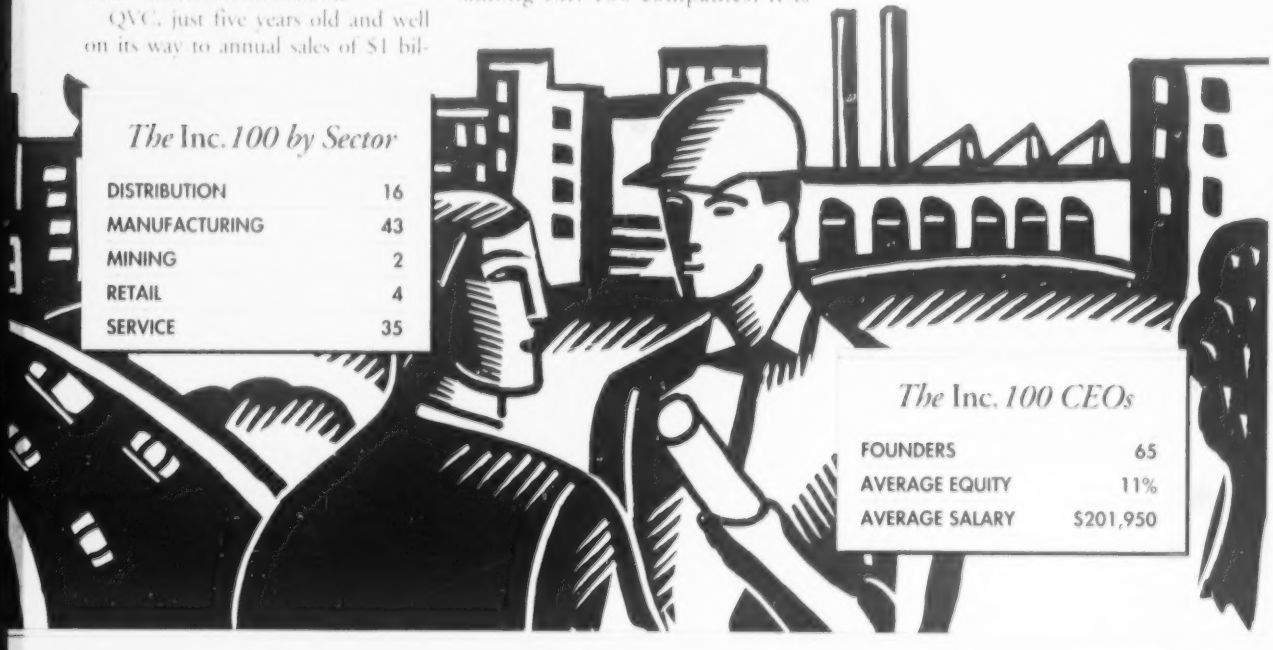
The Inc. *100 by Industry*

CONSUMER	16
COMPUTER RELATED	32
ENVIRONMENT	4
ENERGY RELATED	5
HEALTH RELATED	21
TELECOMMUNICATIONS	11
MISCELLANEOUS	11

The company is currently testing a fashion and accessories channel in a small selected market.

QVC is an instructive example of how change yields opportunity, but among *Inc.* 100 companies, it is hardly an exception. Witness the continuing entrepreneurial response to Ma Bell's breakup. Toiling creatively in the telecommunications arena are 11 of this year's companies, including Peoples Telephone (#83). Peoples, a private-sector phone company, takes a targeted approach to the market, bringing telephoning to where the masses mass. Peoples has thus far installed 19,000 pay phones in high-demand locations, such as gas stations, convenience stores, hospitals, and prisons.

PictureTel (#37) and Phoenix Network (#9) are other by-products of information's brave new world. Phoenix Network buys long-distance phone services and then resells them to an array of small customers who otherwise could not take advantage of volume discounts. PictureTel brings us face-to-face with the present day's McLuhanesque possibilities. It manufactures state-of-the-art videoconferencing systems—along with equally elegant profits for those visionary enough to have bought its



The Inc. *100 by Sector*

DISTRIBUTION	16
MANUFACTURING	43
MINING	2
RETAIL	4
SERVICE	35

The Inc. *100 CEOs*

FOUNDERS	65
AVERAGE EQUITY	11%
AVERAGE SALARY	$201,950

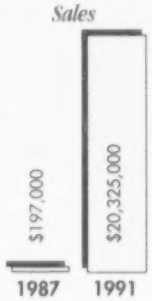
PATRICIA D. ANDERSON

EASY LISTENING

Boosting sales: Innovo Group, Sugar Land, Tex.; #7

IN THE BEGINNING, INNOVO GROUP FOUNDER Patricia D. Anderson had shallow pockets, no proprietary advantage, and almost no notion of what her company would do. But Innovo's humble origins don't appear to have slowed it.

Once a national sales director for a housewares and gift importer, Anderson asked college students in the Houston area, where Innovo Group is based, to create designs for a pot holder and apron that she would silkscreen, sew, and package. She got distribution through gift-shop channels, but she couldn't penetrate the mass merchandisers she needed until a buyer suggested she repackage one of her children's aprons as a craft smock and include a paint set. Anderson made the change and watched sales skyrocket.



Innovo Group now sells aprons, tote bags, and sports bags—all emblazoned with sports-team logos, cartoon characters, and other images licensed for reproduction. How does Anderson decide which trends, personalities, or styles will sell? For one, she keeps listening. Store buyers continue to provide good guidance. But like every smart trend spotter, she takes note of the colors, textures, and graphics people are wearing everywhere she goes. "And I purposely go to trendy restaurants to see what's in," she says. *—Betsey Winckler*

PETER D. BEHRENDT

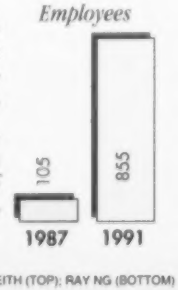
JOB MACHINE

Boosting employment: Exabyte, Boulder, Colo.; #12

IT'S NO LONGER NEWS THAT SMALL GROWING COMpanies are the best job generators in the U.S. economy. Less well reported is the fact that fast-growth companies create many more jobs beyond their own walls than they do inside them. In seven years Exabyte, which develops, manufactures, and markets high-capacity computer-data-storage applications, created 855 in-house jobs, without acquisitions. We're not talking fast-food counter help; the positions range from engineers and marketers to production workers.

Impressive as that figure is, it represents a fraction of the job growth Exabyte has fostered worldwide, CEO Peter D. Behrendt says. A year ago Behrendt surveyed Exabyte's research and manufacturing partners, customers, and vendors. "If Exabyte did not exist," he queried, "what difference would that make in your employee numbers?" The answer: about 4,800 jobs.

Exabyte exhibits some of the standard symptoms of a healthy relationship between a company and its employees: Input is encouraged on the production line, in quarterly meetings, and at "pastries with Peter," informal monthly breakfasts the CEO hosts for 10 randomly selected workers. And thanks to stock options given to employees when they're hired and as performance incentives, approximately 20% of Exabyte stock was owned by employees when the company went public in 1989. *—Betsey Winckler*



stock some time ago; at press time PictureTel stock had risen 127% in the past year. Which is not bad, but nowhere near the pace of the fastest-appreciating stock on this year's list, Noise Cancellation Technologies (#21), which climbed a not-so-quiet 352% in the past 12 months.

Health care, much in the news lately for better (high stock prices) or worse (high prices), is amply represented here, not surprisingly. The 21 health-care companies on the list include the like-named Summit Technology (#35) and Sunrise Technologies (#8)—both of which do the same thing: develop laser-based medical technologies that have revolutionized eye surgery. Several companies, meanwhile, are doing their part to keep high health-care costs from killing the body politic. Value Health (#46) manages specialized programs, such as drug treatment and psychiatry, for employee health-benefit plans; Ren Corp.-USA (#78) builds freestanding kidney-dialysis treatment centers; and T² Medical (#36) provides outpatient infusion therapy.

On the low-tech end of the list are equally intriguing niche openers, such as Rally's (#59) and Rentrak (#44). Rally's, a hamburger chain with 333 units in 22 states gives new meaning to the term *fast food.* Customers order at drive-through windows and are served within 45 seconds. A Rally's is typically half the size of the average fast-food restaurant, the prices about 25% lower.

Rentrak has done a fast forward on the videocassette revolution by exploiting a simple idea: video stores often cannot afford to stock enough new releases to meet initial demand, which dwindles within weeks or months. Rentrak leases the tapes to retailers, and both parties divvy up the rental income.

So what has all this entrepreneurial vigor done beyond provide the usual windfalls for the boss and a coterie of financiers? A lot. Annual revenues for *Inc.* 100 companies last year averaged more than $84 million, a 21-fold increase in five years. The number of employees at the typical company grew from 132 to 896, and sales per employee tripled from $31,000 to nearly $94,000.

As for *Inc.* 100 CEOs, they won't be standing in a soup line tomorrow, but they'll wait to buy the yacht. The average salary—$202,000—would make Steven J. Ross of Time Warner blush. Delayed gratification and future payout,

PHOTOGRAPHS: RON KEITH (TOP); RAY NG (BOTTOM)

in the form of a solid equity stake with bright prospects for appreciation, are the fashion now. The average *Inc.* 100 CEO holds 11% of his company's stock. *His* does indeed seem the operative word here; only three companies—Innovo Group (#7), Quarterdeck Office Systems (#45), and Software Spectrum (#98)—are headed by women.

The *Inc.* 100 are not merely the beneficiaries of change. In their own ways, they are its agents. Their tactics and cultures sometimes reflect trends and ideas that transcend the bottom line. Angeion (#27), a developer and manufacturer of therapeutic cardiovascular devices, teaches English to its Hmong and Vietnamese employees. Aurora Environmental (#90), a consulting and testing company, has established a for-profit environmental-training school for employees and customers. Software developer Platinum Technology (#11) donates up to $50,000 a year to save African wildlife. Automobile Protection (#88), a dozen of whose 50 employees are related, evidently believes the family who works together prospers together. Phoenix Network solicits new customers by offering to rebate 10% of their monthly bills to a charity of their choice. Mycogen (#97), a developer of biopesticides, arranges for its employees to tutor local science students and is developing a science-equipment donation program to schools.

If you've been looking to shake up your professional life but haven't seen evidence to convince you that radical transformations are possible, examine the career path of Frank Martin of The Longwood Group (#50). Before leading his geriatric-care company onto the list, he was a Broadway producer.

Or consider the case of brothers Roy and Larry McKnight, who six years ago sold their small tooling company to Secom General (#87) for $2 million in stock and planned to retire. In 18 months Secom lost $3 million on sales of $5 million, and the McKnights were decidedly poorer. Roy McKnight then stepped in, hired new management, and shed Secom's money-losing high-tech businesses. What was left? The old tooling company. Secom has since acquired four other basic manufacturing companies. This year sales should hit $40 million, and McKnight confidently projects $200 million in annual revenues by 1995. Some retirement. ❑

—Edward O. Welles

PROFIT MOTIVE

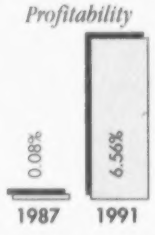
Boosting profitability: Qual-Med, Monte Vista, Colo.; #19

MALIK M. HASAN

A FIX FOR THE NATION'S RUINOUSLY HIGH HEALTH-care costs? Stop using so many diagnostic tests.

That's the solution offered by Qual-Med, which acquired four almost-insolvent health-maintenance organizations in Western states and turned them into profit centers. How? By curing the HMOs' staffs of "intellectual laziness and overindulgence," founder Malik M. Hasan says. Qual-Med's medical-management system triggers drastic reductions in the number of costly tests and diagnostic procedures ordered per patient, enabling the company to find margin where none existed, he says.

That may sound like medicine practiced by accountants, but Hasan argues otherwise. "When you substitute testing for personal care, you're loyal to your machines, not your patients." For too many physicians, tests are a crutch, he says, and are resorted to without regard for expense, discomfort, inconvenience, or even usefulness. Not only has fighting this attitude resulted in profits, Qual-Med also boasts a 90% patient-satisfaction rate—30% higher than at other local facilities, according to Hasan.



Hasan considers Qual-Med's success a living indictment of U.S. medicine's overreliance on technology. "By working hard at quality, the cost comes down naturally," he says.

—Vera Gibbons

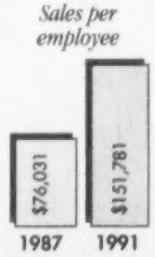
FLOOR WALKERS

Boosting productivity: Babbage's, Dallas; #73

JAMES McCURRY AND GARY KUSIN

NINE YEARS AGO H. ROSS PEROT PANNED JAMES B. McCurry and Gary M. Kusin's business plan for a mall-based software chain. "Start with one store," he advised, "and run it yourselves." So the two founders quit their jobs to build, stock, and run the sales floor of the first Babbage's.

Kusin and McCurry have since promoted themselves to executive offices, but they haven't lost sight of where the organization gets its leverage. "Where the customer meets the company is the single most important point in retail," McCurry says. To make that meeting place a success, Kusin and McCurry focused on hiring approachable, friendly salespeople instead of potentially intimidating computer jocks. Salespeople receive continual training, including company-generated videos. To keep technologically current, the staff can practice on sample software at home, and store managers may buy home computers with no-interest company-sponsored loans.



Perhaps because two vice-presidents and all 32 regional and district managers have climbed from the retail floor, every level of the organization remains closely tied to the field. Every day each store sends headquarters a daily report that includes not only numbers, but also comments, questions, and product requests from customers and staff.

Perot's advice has definitely paid off. "Our sales staff is the most important factor in our success," Kusin says.

—Phaedra Hise

PHOTOGRAPHS: RICHARD MORGENSTEIN (TOP), REID HORN (BOTTOM)

INC. 100

1992 RANK	COMPANY	BUSINESS DESCRIPTION	COMPOUND ANNUAL SALES GROWTH 1987–91	REVENUES ($000) 1991	1987
1.	**QVC Network** (West Chester, PA)	Broadcasts televised shopping programs	334%	$776,029	$2,189
2.	**NYCOM Information Services** (Stamford, CT)	Provides telecommunications svcs.	300	47,000 d	183
3.	**Canyon Resources** (Golden, CO)	Develops gold properties	264	21,700 d	124
4.	**Marsam Pharmaceuticals** (Cherry Hill, NJ)	Develops, mfrs., & mkts. pharmaceuticals	255	17,000 d	107
5.	**Zeos International** (St. Paul, MN)	Develops & mkts. computer systs.	240	230,913	1,733
6.	**Cisco Systems** (Menlo Park, CA)	Develops & mfrs. networking systs.	233	183,184	1,485
7.	**Innovo Group** (Sugar Land, TX)	Mfrs. & mkts. bags & aprons	219	20,325	197
8.	**Sunrise Technologies** (Fremont, CA)	Designs, mfrs., & mkts. medical laser systs.	218	20,337	200
9.	**Phoenix Network** (San Francisco, CA)	Provides telecommunications svcs.	216	13,498	136
10.	**Diagnostek** (Albuquerque, NM)	Provides pharmacy-mgmt. svcs.	203	225,143	2,654
11.	**Platinum Technology** (Lombard, IL)	Develops & mkts. systems software	203	28,768	340
12.	**Exabyte** (Boulder, CO)	Designs, mfrs., & mkts. magnetic-tape systs. *	201	234,052	2,365
13.	**Network General** (Menlo Park, CA)	Designs, mfrs., & mkts. local-area-network software	199	44,613	556
14.	**Vitesse Semiconductor** (Camarillo, CA)	Designs, mfrs., & mkts. integrated circuits	193	23,723	324
15.	**Amtech** (Dallas, TX)	Designs, mfrs., & mkts. vehicle-identification systs.	192	18,748	258
16.	**Regal Communications** (Fort Washington, PA)	Develops & mkts. telephone-entertainment programs	164	17,707	363
17.	**DeVry** (Evanston, IL)	Owns & operates business schools	154	163,141	3,995
18.	**SynOptics Communications** (Santa Clara, CA)	Distr. local-area-network integration & mgmt. systs.	153	248,255	6,063
19.	**Qual-Med** (Monte Vista, CO)	Provides HMO svcs.	151	290,773 d	7,315
20.	**MHI Group** (Tallahassee, FL)	Owns & operates funeral homes	147	13,039	348
21.	**Noise Cancellation Technologies** (Linthicum, MD)	Develops noise-abatement technologies	146	6,000 d	163
22.	**Micronics Computers** (Fremont, CA)	Distr. system boards for personal computers	141	133,899	3,989
23.	**Cirrus Logic** (Fremont, CA)	Mfrs. & distr. integrated circuits & software	138	159,616	5,014
24.	**VISX** (Sunnyvale, CA)	Designs & mfrs. corrective-vision technology	135	13,171	435
25.	**First Team Sports** (Mounds View, MN)	Mfrs. & distr. center-aligned roller skates	133	13,702	461
26.	**Warrantech** (Stamford, CT)	Mkts. & administers service & warranty contracts	133	56,463	1,914
27.	**Angeion** (Minneapolis, MN)	Develops & mfrs. cardiovascular prods.	133	6,472	220
28.	**Electronic Technology Group** (Jamestown, NY)	Mfrs. electronic circuit boards	133	15,856	539
29.	**Creative Technologies** (Brooklyn, NY)	Develops & mkts. new consumer technologies	132	6,103	212
30.	**Cable Car Beverage** (Denver, CO)	Mkts. specialty soft drinks	128	12,138	453
31.	**Applebee's International** (Kansas City, MO)	Owns, operates, & franchises restaurants	127	45,130	1,701
32.	**Sybase** (Emeryville, CA)	Develops & mkts. database-mgmt. software	127	159,448	6,047
33.	**In Focus Systems** (Tualatin, OR)	Develops & mfrs. liquid-crystal-display prods.	125	49,500	1,930
34.	**Novellus Systems** (San Jose, CA)	Mfrs., mkts., & svcs. integrated-circuit systs.	123	80,014	3,262
35.	**Summit Technology** (Waltham, MA)	Mfrs. eye-surgery lasers	122	22,018	912
36.	**T² Medical** (Alpharetta, GA)	Provides outpatient infusion therapy	121	147,572	6,132
37.	**PictureTel** (Peabody, MA)	Develops, mfrs., & mkts. visual-communications systs.	120	78,024	3,326
38.	**Ambar** (Lafayette, LA)	Provides & mkts. environmental svcs.	118	21,425	941
39.	**Xilinx** (San Jose, CA)	Distr. development-systems software	117	97,638	4,375
40.	**USMX** (Lakewood, CO)	Develops gold properties	117	16,461	738
41.	**International Recovery** (Miami Springs, FL)	Provides aviation-fuel svcs.	116	234,280	10,841
42.	**CE Software Holdings** (West Des Moines, IA)	Designs, mkts., & distr. business software	115	8,640	402
43.	**Bloc Development** (Coral Gables, FL)	Designs, mkts., & distr. business software	115	43,000 d	2,022
44.	**Rentrak** (Portland, OR)	Distr. prerecorded videocassettes	114	33,942	1,608
45.	**Quarterdeck Office Systems** (Santa Monica, CA)	Develops & mkts. software	114	47,995	2,297
46.	**Value Health** (Avon, CT)	Provides health plans	113	154,787	7,483
47.	**Mitek Surgical Products** (Norwood, MA)	Distr. tendon-reattachment implants	112	8,810 d	437
48.	**Cabletron Systems** (Rochester, NH)	Develops, mfrs., & mkts. computer-networking prods.	109	180,538	9,450
49.	**Diagnostic Sciences** (Huntington, NY)	Provides diagnostic-imaging svcs.	108	9,427 d	501
50.	**Longwood Group** (Springfield, PA)	Develops, mkts., & administers geriatric facilities	106	2,165 d	120

* according to stock performance for March 1991 to March 1992 c: company estimate; d: nineteenth figure; 1: 1990 figure; NA: not available

NET INCOME ($000)		NO. EMPLOYEES		YEAR	STOCK				CEO		
1991	1987	1991	1987	PUBLIC	SYMBOL	EXCHANGE	% CHANGE*	RANK*	SALARY	FOUNDER	EQUITY %
($16,985)	($8,466)	5,000	1,200	1986	QVCN	NASDAQ	126 %	20	$375,000	Y	5.0 %
(2,483)[b]	(1,613)	329	17	1986	NYCM	NASDAQ	–90	99	163,000[c]	N	3.0[c]
498[b]	940	115	22	1986	CYNR	NASDAQ	163	13	83,243[c]	Y	2.7[c]
506[b]	(1,431)	80	19	1987	MSAM	NASDAQ	–7	77	200,000[c]	Y	20.3[c]
10,286	(135)	813	67	1987	ZEOS	NASDAQ	31	61	140,000	Y	20.0
43,189	83	505	9	1990	CSCO	NASDAQ	187	8	274,905	N	3.3
1,357	2	800	3	1990	INNO	NASDAQ	137	15	84,000	Y	34.0
3,986	6	73	5	1989	SNRS	NASDAQ	47	54	162,000	Y	19.1
(964)	(178)	43	5	1983	PHXN	NASDAQ	68	40	147,096	Y	51.8
6,885	487	2,800	25	1983	DXK	NYSE	61	45	400,000	Y	6.0
5,089	(747)	151	15	1991	PLAT	NASDAQ	157	14	624,683	Y	29.8
32,197	(3,002)	855	105	1989	EXBT	NASDAQ	96	35	300,000	N	2.5
7,261	0	148	5	1989	NETG	NASDAQ	102	29	170,000	Y	13.2
(2,916)	(5,157)	252	75	1991	VTSS	NASDAQ	122	23	136,061	Y	1.2
4,985	(3,129)	200	36	1989	AMTC	NASDAQ	228	5	180,000[c]	N	1.0[c]
2,640	(819)	42	12	1986	RCOM	NASDAQ	37	59	144,000	Y	45.9
(3,645)	384	2,000	27	1991	DVRY	NASDAQ	98	32	294,481	Y	15.3
26,807	(314)	1,000	250	1988	SNPX	NASDAQ	–51	94	370,455	Y	4.2
13,949[b]	6	660	35	1991	QLMD	NASDAQ	167	12	450,000	Y	32.0
(623)	(897)	150	25	1968	MH	NYSE	216	6	195,000	N	4.0
(656)[b]	(2,113)	80	12	1987	NCTI	NASDAQ	352	1	125,000	N	8.0
9,372	176	260	50	1991	MCRN	NASDAQ	21	67	285,986	Y	8.2
20,477	(6,367)	558	106	1989	CRUS	NASDAQ	–11	79	370,406	Y	1.8
(1,817)	(1,448)	70	3	1988	VSX	AMEX	133	16	135,000	Y	4.0
1,472	(90)	32	4	1987	FTSP	NASDAQ	26	65	95,000	Y	8.0
(138)	(345)	40	15	1984	WTEC	NASDAQ	84	37	134,[illegible]73	Y	16.5
(1,767)	(640)	124	17	1988	ANGN	NASDAQ	–52	95	1[illegible]600	Y	3.0
(1,441)	20	190	52	1990	ETEK	NASDAQ	–88	98	75,000	Y	6.3
73[b]	(1,065)	14	14	1986	CRTV	NASDAQ	275	2	100,000	N	0.0
(486)	(790)	56	7	1972	DRNK	NASDAQ	46	56	93,500	N	12.4
3,081	(121)	1,704	NA	1989	APPB	NASDAQ	75	38	188,390[c]	Y	17.0[c]
9,159	(7,423)	1,001	146	1991	SYBS	NASDAQ	96	34	179,000	Y	4.6
4,700	(508)	175	12	1990	INFS	NASDAQ	–37	87	172,500	Y	16.0
16,777	(3,150)	265	46	1988	NVLS	NASDAQ	15	68	302,596	N	1.5
980	(1,597)	108	30	1987	BEAM	NASDAQ	116	25	145,000	Y	11.3
34,570	1,233	607	110	1988	TSQM	NASDAQ	115	26	275,000	Y	1.7
5,951	(5,023)	430	50	1984	PCTL	NASDAQ	127	19	153,713[c]	N	1.4
1,331	50	110	6	1991	AMBR	NASDAQ	–38	88	175,000	Y	53.4
15,932	(5,080)	455	80	1990	XLNX	NASDAQ	52	50	190,000	Y	3.2
1,927	(1,310)	82	27	1980	USMX	NASDAQ	57	47	135,000	N	26.0
4,806	286	280	40	1986	INT	NYSE	49	52	534,985	Y	5.5
1,437	17	80	12	1990	CESH	NASDAQ	34	60	100,000	Y	17.1
(1,886)[b]	451	240	30	1988	BDEV	NASDAQ	–26	84	251,250	Y	32.0
1,298	125	153	72	1986	RENT	NASDAQ	–6	76	200,000	Y	3.5
12,018	346	246	128	1991	QDEK	NASDAQ	110	27	136,538	Y	8.6
7,522	(774)	550	1	1991	VHII	NASDAQ	169	11	350,000	Y	11.0
1,251[b]	(350)	31	6	1991	MYTK	NASDAQ	122	24	200,000	N	0.0
35,917	734	2,000	160	1989	CS	NYSE	63	43	52,000	Y	22.0
802[b]	(751)	700	4	1987	DSIC	NASDAQ	52	49	0	N	15.0
1,200[b]	(258)	11	3	1987	LONG	NASDAQ	39	57	120,000[c]	Y	5.0[c]

1992 RANK	COMPANY	BUSINESS DESCRIPTION	COMPOUND ANNUAL SALES GROWTH 1987–91	REVENUES ($000) 1991	1987
51.	**Environmental Services of America** (Newark, NJ)	Provides environmental & hazardous-waste mgmt. svcs.	106 %	$17,099 [a]	$957
52.	**Integrated Health Services** (Hunt Valley, MD)	Provides geriatric svcs.	106	143,652	8,040
53.	**AirSensors** (Cerritos, CA)	Develops automotive electronic-fuel systs.	105	30,530	1,734
54.	**Jillian's Entertainment** (Miami, FL)	Owns & operates billiard clubs	104	2,401	138
55.	**Random Access** (Denver, CO)	Mkts. computer hardware, software, training, & svcs.	102	58,601	3,515
56.	**Artisoft** (Tucson, AZ)	Designs, mfrs., & mkts. local-area-network software	102	41,001	2,481
57.	**Oxford Health Plans** (Darien, CT)	Provides health plans	101	92,478	5,630
58.	**Radius** (San Jose, CA)	Designs, mfrs., & mkts. high-resolution computer screens	101	118,624	7,278
59.	**Rally's** (Louisville, KY)	Owns, operates, & franchises restaurants	101	94,131	5,784
60.	**Matrix Service** (Tulsa, OK)	Provides petroleum-refining svcs.	100	86,486	5,364
61.	**C. A. Short International** (Amlin, OH)	Mkts. incentive programs	99	24,320	1,566
62.	**Homestyle Buffet** (Palm Harbor, FL)	Owns & operates restaurants	98	49,447	3,188
63.	**Future Now** (Cincinnati, OH)	Distr. & installs microcomputer software & systs.	97	138,700	9,213
64.	**Medical Imaging Centers of America** (San Diego, CA)	Provides medical svcs. to hospitals & physicians	97	87,700 [a]	5,852
65.	**Strings** (Brooklyn, NY)	Operates retail gift stores	96	4,021	271
66.	**Royce Laboratories** (Miami, FL)	Develops, mfrs., & mkts. pharmaceuticals	96	2,000 [a]	135
67.	**LDDS Communications** (Jackson, MS)	Provides telecommunications svcs.	96	263,408	18,030
68.	**Bio-Reference Laboratories** (Elmwood Park, NJ)	Provides diagnostic chemical-testing svcs.	95	14,627	1,002
69.	**Read-Rite** (Milpitas, CA)	Distr. thin-film disk-drive recording heads	94	177,022	12,490
70.	**Qualcomm** (San Diego, CA)	Develops, mfrs., & mkts. digital-telecommunications systs.	93	90,253	6,553
71.	**International Mobile Machines** (King of Prussia, PA)	Develops & mkts. digital-telecommunications systs.	93	33,000 [a]	2,397
72.	**Image Entertainment** (Chatsworth, CA)	Distr. laser-disk programs	92	48,189	3,530
73.	**Babbage's** (Dallas, TX)	Operates retail software stores	91	132,808	9,884
74.	**Heritage Media** (Dallas, TX)	Provides in-store advertising & promotional svcs.	90	222,360	17,216
75.	**Arch Petroleum** (Fort Worth, TX)	Extracts petroleum & natural gas	89	16,021	1,247
76.	**Trimble Navigation** (Sunnyvale, CA)	Designs, mfrs., & mkts. navigational instruments	88	150,970	12,007
77.	**Zila** (Phoenix, AZ)	Mkts. & distr. topical medications	88	3,984	318
78.	**Ren Corp.-USA** (Nashville, TN)	Provides kidney-dialysis treatment	87	53,427	4,328
79.	**AutoInfo** (Maywood, NJ)	Provides computer networks for auto-salvage industry	87	9,624	783
80.	**MIPS Computer Systems** (Sunnyvale, CA)	Designs, mfrs., & mkts. computer systs. & workstations	87	168,518	13,902
81.	**Digital Systems International** (Redmond, WA)	Mfrs. & mkts. outbound-telephone-call systs.	85	51,761	4,375
82.	**Energy Ventures** (Houston, TX)	Provides oil-field svcs. & equip.	85	177,325	15,254
83.	**Peoples Telephone** (Miami, FL)	Operates & svcs. pay-telephone systs.	85	55,000 [a]	4,745
84.	**American Power Conversion** (West Kingston, RI)	Designs, mfrs., & mkts. computer software	84	93,624	8,133
85.	**Vestro Foods** (Newport Beach, CA)	Mfrs. specialty foods	84	37,291	3,240
86.	**KnowledgeWare** (Atlanta, GA)	Designs, develops, & mkts. computer-aided-engineering prods.	83	124,277	10,987
87.	**Socom General** (Novi, MI)	Mfrs. metal & plastic parts & other prods.	83	16,963	1,500
88.	**Automobile Protection** (Atlanta, GA)	Mkts. & administers vehicle service contracts	83	23,205	2,060
89.	**Watsco** (Coconut Grove, FL)	Mfrs. & distr. heating & air-conditioning equip.	83	169,554	15,068
90.	**Aurora Environmental** (New York, NY)	Provides environmental consulting & testing	83	10,444	931
91.	**Horizon Healthcare** (Albuquerque, NM)	Operates long-term geriatric-care centers	83	110,672	9,866
92.	**Broadcast International** (Midvale, UT)	Provides satellite-communications prods. & svcs.	83	32,915 [a]	2,935
93.	**IPL Systems** (Waltham, MA)	Designs, mfrs., & mkts. data-storage systs.	83	60,469	5,404
94.	**Intellicall** (Carrollton, TX)	Develops & mkts. pay phones	82	221,555	20,195
95.	**Digi International** (Eden Prairie, MN)	Mfrs. data-communciations hardware & software	82	40,843	3,723
96.	**SciMed Life Systems** (Maple Grove, MN)	Develops, mfrs., & mkts. disposable medical devices	81	111,779	10,377
97.	**Mycogen** (San Diego, CA)	Develops, mfrs., & mkts. biological pesticides	80	24,000 [a]	2,271
98.	**Software Spectrum** (Garland, TX)	Distr. microcomputer business software	80	118,507	11,391
99.	**IMRS** (Stamford, CT)	Develops & mkts. network-based business software	79	34,324	3,308
100.	**Sepracor** (Marlborough, MA)	Develops, mfrs., & mkts. compound-purification processes	78	12,240 [a]	1,223

* according to stock performance for March 1991 to March 1992; a company estimate; b nine-month figure; c 1990 figure; NA: not available

NET INCOME ($000) 1991	NET INCOME ($000) 1987	NO. EMPLOYEES 1991	NO. EMPLOYEES 1987	YEAR PUBLIC	STOCK SYMBOL	STOCK EXCHANGE	STOCK % CHANGE*	STOCK RANK*	CEO SALARY	CEO FOUNDER	CEO EQUITY %
$479[b]	($450)	150	15	1987	ENSA	NASDAQ	–7%	78	$115,000	N	9.0%
5,925	(1,493)	6,000	700	1991	IMSI	NASDAQ	63	44	200,000	Y	12.2
(1,649)	(2,919)	201	43	1986	ARSN	NASDAQ	–29	86	128,583	N	0.0
(2,716)	113	1,000	5	1985	QBAL	NASDAQ	100	30	50,000	N	20.2
1,086	127	214	11	1987	RNDM	NASDAQ	100	31	156,119	Y	31.2
6,523	125	248	12	1991	ASFT	NASDAQ	97	33	262,500	Y	28.0
3,311[b]	(2,662)	228	70	1991	OXHP	NASDAQ	–44	91	226,064	Y	9.3
3,691	133	340	20	1990	RDUS	NASDAQ	39	58	196,185	N	2.8
6,071	(531)	12,112	87	1989	RLLY	NASDAQ	128	18	0	N	0.5
5,569	110	112	50	1990	MTRX	NASDAQ	24	66	115,200	Y	4.2
601	426	100	5	1983	CASH	NASDAQ	–19	83	100,000	Y	23.5
(856)	125	2,000	250	1988	HBUF	NASDAQ	–40	90	90,000	N	1.8
3,005	(89)	550	53	1991	FNOW	NASDAQ	67	41	115,481	Y	2.5
6,152[b]	(2,350)	NA	NA	1985	MIKA	NASDAQ	–68	96	266,235	Y	2.5
728	(37)	50	20	1989	STGS	NASDAQ	–39	89	125,000	Y	26.9
116[b]	(1,503)	40	15	1986	RLAB	NASDAQ	–12	80	100,000	N	4.6
17,714	1,566	900	60	1989	LDDS	NASDAQ	71	39	489,269[c]	Y	21.2[c]
(2,747)	(1,075)	241	99	1986	BRLI	NASDAQ	–92	100	181,000[c]	Y	19.0[c]
23,076	(22,548)	5,000	200	1991	RDRT	NASDAQ	109	28	139,315	N	0.9
(8,365)	208	619	94	1991	QCOM	NASDAQ	27	64	157,116	Y	8.9
686[b]	(10,780)	108	NA	1981	IMMC	NASDAQ	49	53	250,000	N	0.0
(609)	(196)	93	50	1980	DISK	NASDAQ	56	48	204,000	Y	8.0
4,115	8	875	130	1988	BBGS	NASDAQ	173	10	250,000	Y	8.7
(14,958)	(6,051)	14,500	500	1988	HTG	AMEX	0	72	242,000	Y	1.0
6,991	303	27	19	1983	ARCH	NASDAQ	27	63	122,200[c]	N	4.5[c]
6,965	514	900	100	1990	TRMB	NASDAQ	9	70	262,000	Y	11.5
(3,684)	(441)	12	10	1980	ZILA	NASDAQ	129	17	141,000	N	8.0
1,633[b]	642	700	300	1989	RENL	NASDAQ	186	9	375,000	Y	10.4
2,403	(669)	50	25	1986	AUTO	NASDAQ	7	71	120,000	Y	4.5
(34,671)	(10,500)	700	160	1989	MIPS	NASDAQ	47	55	234,117	N	1.7
(1,190)	1,227	400	40	1990	DGTL	NASDAQ	–17	82	163,000	Y	14.0
4,463[b]	2,692	2,000	4	1972	ENGY	NASDAQ	–29	85	200,000	N	0.5
1,267[b]	(1,035)	240	50	1987	PTEL	NASDAQ	123	22	289,794	Y	10.0
15,567	1,091	425	62	1988	APCC	NASDAQ	243	3	255,636[c]	N	12.0[c]
558[b]	104	210	184	1987	VEST	NASDAQ	50	51	180,000	Y	12.7
15,328	(2,471)	766	80	1989	KNOW	NASDAQ	–49	93	180,000	Y	9.6
1,103	(1,131)	415	120	1987	SECM	NASDAQ	123	21	141,500	N	9.2
298	(12)	54	9	1988	APCO	NASDAQ	0	73	138,600	Y	17.7
1,817[b]	1,626	650	308	1962	WSOA	AMEX	–13	81	325,000	N	20.0
113	63	136	56	1983	AURE	NASDAQ	–74	97	97,116	N	21.3
1,830	(1,516)	5,400	4,800	1987	HHC	NYSE	230	4	350,000	Y	11.7
1,528[b]	(435)	450	35	1990	BRIN	NASDAQ	–2	74	145,500[c]	Y	3.8[c]
9,363	1,759	130	34	1981	IPLSA	NASDAQ	11	69	140,091	N	2.5
2,398	1,304	410	150	1987	ICL	NYSE	–47	92	250,000	N	4.0
7,982	603	164	26	1989	DGII	NASDAQ	57	46	144,680	Y	16.3
28,755	214	1,200	200	1979	SMLS	NASDAQ	64	42	187,000	N	1.3
(1,389)[b]	(4,935)	280	100	1987	MYCO	NASDAQ	–4	75	226,489	N	0.0
1,928	238	201	35	1991	SSPE	NASDAQ	94	36	191,812	Y	19.1
2,651	65	262	35	1991	IMRS	NASDAQ	204	7	311,000	N	10.6
(12,854)[b]	(2,673)	172	52	1991	SEPR	NASDAQ	30	62	186,306	Y	2.4

"What Are You Doing About Sexual Harassment?"

Take the Inc. FaxPoll on page 23

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How the Inc. *100 Are Selected*

THE 1992 INC. 100 IS THE 13TH ranking of the 100 fastest-growing small public companies in the country.

The companies on the list are ranked by the compound annual growth rate in total revenues or net sales from fiscal year 1987 to fiscal year 1991.

To be eligible for the *Inc.* 100, companies must be publicly held, independent corporations; they may not be subsidiaries or divisions of other companies. They must have gone public no later than December 31, 1991, and there must be an active market in their stock.

In addition, each company must have reported 1987 revenues of no less than $100,000 and no greater than $25 million. Companies with 1991 reported revenues lower than 1990 revenues were disqualified.

Utilities, oil- and gas-exploration companies, and capital-enhancement companies—such as banks, insurance carriers, real estate developers, holding companies, and other investment offices—are excluded from consideration.

A team of researchers reviewed the financial reports of some 2,500 companies and interviewed the chief executive and chief financial officers of several hundred finalists.

Special-reports editor Elyse M. Friedman directed the *Inc.* 100 research team, which included *(front row, left to right)* Vera Gibbons, Phaedra Hise, Tyson R. Freeman, and Betsey Winckler; *(back row)* Judy Snow, Jason Ayers, Glenn David Chamuel, Krista J. Weidman, and Nathaniel M. Lindzen; and *(not pictured)* Laura L. Khelokian. ⌟

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Babbage's	73	IMRS	99	NYCOM Information Services	2	Summit Technology	35
Bio-Reference Laboratories	68	In Focus Systems	33	Oxford Health Plans	57	Sunrise Technologies	8
Bloc Development	43	Innovo Group	7	Peoples Telephone	83	Sybase	32
Broadcast International	92	Integrated Health Services	52	Phoenix Network	9	SynOptics Communications	18
C.A. Short International	61	Intellicall	94	PictureTel	37	T. Medical	26
Cable Car Beverage	30	International Mobile Machines	71	Platinum Technology	11	Trimble Navigation	76
Cabletron Systems	48	International Recovery	41	Qualcomm	70	USMX	40
Canyon Resources	3	IPL Systems	93	Qual-Med	19	Value Health	46
CE Software Holdings	42	Jillian's Entertainment	54	Quarterdeck Office Systems	45	Vestro Foods	85
Cirrus Logic	23	KnowledgeWare	86	QVC Network	1	VISX	24
Cisco Systems	6	LDDS Communications	67	Radius	58	Vitesse Semiconductor	14
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PHOTOGRAPH: RICHARD MITCHELL

INC. 100

SMALL IS, FINALLY, BEAUTIFUL

Underappreciated for years, small-company stocks finally exploded into investment favor in 1991. Will their newfound preeminence last?

WHILE THE COUNTRY'S LARGEST PUBLIC CORPORATIONS—General Motors, IBM, Westinghouse, Woolworth, and the like—are coming apart at the seams, its smallest have been putting on quite a show of strength. Small-capitalization corporations—those whose market value is a few hundred-million dollars or less—enjoyed their best stock-performance year ever.

In 1991 the blue-chip 30 Dow Jones Industrials gained 20%. But the Dow wasn't where the action was. The real movement was in the automated over-the-counter market, NASDAQ, where at the close of the year the average market value of a listing was $126 million, or approximately one two-hundredth of GM's. The NASDAQ Industrial Average soared a monumental 65%. Similarly, the Hambrecht & Quist Growth Index, composed of about 100 companies with market values of less than $200 million, surged an even longer 94%. Trading on NASDAQ soared to 41.3 billion shares (a record), and dollar volume to $694 billion (ditto).

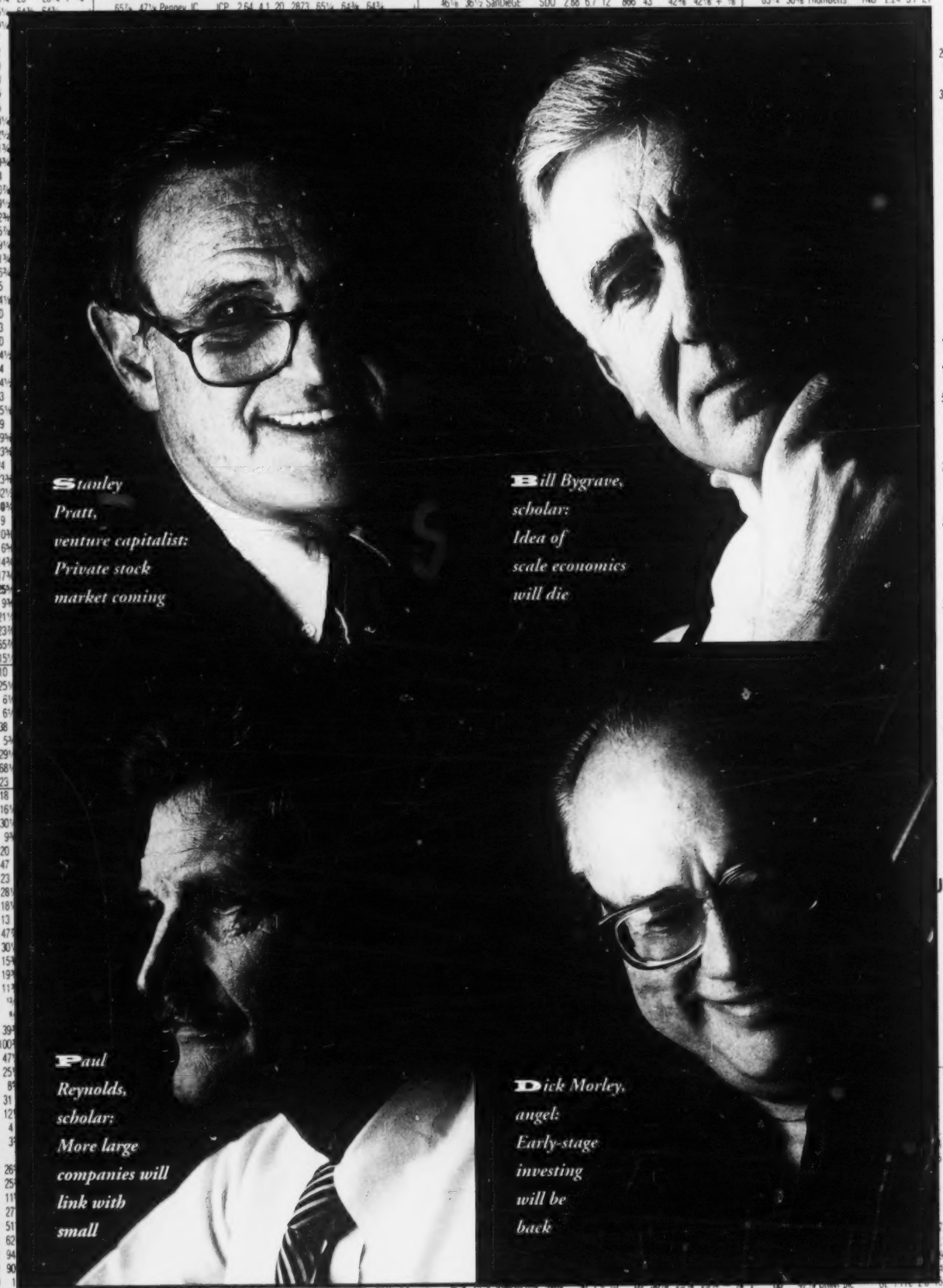
Small-cap stocks' climbing to record heights suggests a fundamental shift in investors' appreciation of our economy's future. Previously chary of the risk inherent in small-cap corporations—and of in-and-out liquidity problems due to their relatively low number of outstanding shares—many an institutional trading desk hired a small-cap money manager in 1991.

Why? Not because they suddenly discovered that growth-oriented management was more alert. Or that small companies could adapt to change faster, grab market share faster, create new products faster, bring them to market faster, start selling them faster, cut fat, trim overhead, go lean and mean—those abilities they already knew about.

What investors realized was that, almost without exception, small-cap operations were bringing the bacon back home. Such companies thrive best where the rest of the globe hasn't yet dared venture. In 1991 small-cap hot spots included regional health care and delivery, biotechnology, software, computer mail order, specialty retail, and telecommunications—nary a VCR, TV, slab of steel, or side of beef to be found. Save for the silicon-chip business every now and again, no industrial sector populated by small public companies was so

By ROBERT A. MAMIS and EDWARD O. WELLES

PHOTOGRAPHS: MILLICENT HARVEY (TOP TWO & BOTTOM RIGHT); JAMES SCHNEPF (BOTTOM LEFT)



Stanley Pratt, venture capitalist: Private stock market coming

Bill Bygrave, scholar: Idea of scale economics will die

Paul Reynolds, scholar: More large companies will link with small

Dick Morley, angel: Early-stage investing will be back

desperately inept that the government had to drag a bevy of underinspired and overcompensated executives across the Pacific to bitch about it.

So let Japan have its MITIs and hierarchies. Big money's eager endorsement of small, non-dividend-paying companies in 1991 recognizes that pure capital gain is itself a rewarding concept. Forget the Nifty Fifty. Forget total return. Growth companies that plow income back into operations constitute a far more sensible investment than behemoths that have no better plan for capital than to raise CEO salaries.

Indeed, our entrepreneurial hockey-stick growth curves are the envy of the Japanese, who for half a dozen years have been trying to light the spark of innovative enterprise under their own worrisomely flattening economy.

Relative Market Performance

Industrial average	*3/1/91*	*2/28/92*	*% Change*
INC. 100	11.8	18.7	+58%
NASDAQ	510	722	+42%
AMEX	348	416	+20%
DJIA	2,910	3,268	+12%
S&P	439	491	+12%

They've had little success. So little, in fact, that plenty of U.S. small-company executives have been invited to teach them how to sow seeds properly. We may not be selling them any cars or fridges, but our growth-strategy know-how sure is in demand.

And no wonder. Businesspeople here run clever, raised-on-their-own-nickel companies such as—to name a few mentioned previously in *Inc.*—Symantec, up 233% in 1991; Borland International, up 159%; Ben & Jerry's Homemade, up 151%; Paychex, up 89%; and Dell Computer, up 39%.

By contrast, GM and IBM—which you have not read about in these pages—lost 16% and 21%, respectively. Not to mention 114,000 jobs. ❑ *—Robert A. Mamis*

THE FALLOUT: Better private-equity markets, more venture capital, increased eagerness among prospective big-company partners . . . How the stock market's enthusiasm will change your small company's life

AT THE HEART OF THE BULL MARKET FOR SMALL-capitalization stocks lie forces that will favor small companies in the years ahead and in turn will reshape the economy in their image.

"Every bit of evidence shows that two things are happening. The size of economic units that do productive things are getting smaller. And the number of those units is increasing," observes Paul Reynolds, a professor of entrepreneurship at Marquette University. These trends are part, he says, of "a fundamental shift in the economic structure, which will not reverse itself in my lifetime." Large companies such as IBM, to take a prime example, will never again look the way they did in the 1960s and '70s. "If IBM regains its profitability and market share, it's not because it will hire more people, but because it used fewer people and used them smarter," he predicts.

The increasing importance and numbers of small companies owe to a series of intertwined factors. Together, they exist as portents that are hard to ignore. Here is a look at some of these present causes and future consequences, presaged by the current bull market for small-cap companies.

VENTURE CAPITAL

With IPOs again offering lucrative exits, early-stage investment will revive

The hot market for small-cap stocks and, in particular, for initial public offerings signals the gradual return of venture capital to its original mission: the funding of early-stage start-up companies. That is a role U.S. venture capital increasingly abandoned after the collapse of the IPO market in 1984. As aversion to risk grew inversely to the decline in returns, venture capitalists became glorified investment bankers. Innovative young companies, starved for cash, died on the vine—or sought out more patient and venturesome Japanese investors.

Now that process is unwinding.

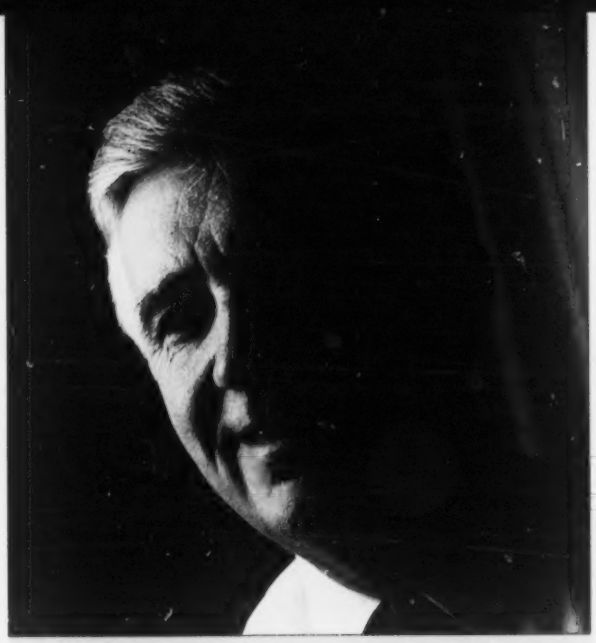
"The higher valuations for small-cap stocks will encourage venture capitalists to get back into earlier-stage investments. The window is open again," says Dan R. Garner, national director of entrepreneurial services at Ernst & Young, in Dallas. The robust market for IPOs in 1991 offers venture backers of small companies a viable exit and thus sufficient incentive to assume the attendant risk.

That gives hope not just to investors, but to entrepreneurs as well, notes Bill Bygrave, a professor of entrepreneurship at Babson College. "A healthy IPO market effectively lowers the cost of capital to start-up companies," he says. "Entrepreneurs get a higher price for their stock and have to give up less of the company to get it."

Bill Hambrecht, president of the San Francisco venture-capital firm Hambrecht & Quist, cites two more factors that will favor small, innovative companies: low interest rates and the failure of the debt-driven financial strategies of the '80s. "Fund managers can afford to sit out the market when they can get 8% or 9% on their money," Hambrecht notes. "But if they do that at 3% or 4%, they get fired. If you want above-average performance, you have to look for above-average growth in earnings. And that means you have to look for small companies."

Meanwhile, he adds, the '80s emphasis on borrowing placed a premium on tangible assets. "That was something banks were comfortable lending against." That bias favored large, mature companies at the expense of small ones whose key resources were locked up inside of people's heads. Now in a climate of asset deflation, small, knowledge-based companies have returned to favor, and that, he says, "has brought us back to a level playing field."

The return to a more classical form of venture capital will, meanwhile, stimulate related forms of alternative investment that languished in the late '80s, as lending grew more institutionalized. Prime among those are business angels—well-heeled



Bygrave: 'A healthy IPO market lowers the cost of start-up capital. Founders will get more for their stock and give up less of the company.'

individuals who privately place their money in small companies. With funds believed to outstrip the formal U.S. venture-capital pool of $36 billion by roughly 10 times, angels tend a huge, murky pool of cash. Until lately, though, some of that money has been frozen out of the investment process. In the current climate, in which exit opportunities are improved by the newfound strength of small-cap stocks and IPOs, angels will come back. Take the case of Dick Morley, an angel based in Amherst, N.H.

In the past, as Morley's investments matured and required additional funding, he brought in venture capitalists to make early-round investments and boost start-ups to their next level of growth. By the late '80s, though, those venture-capital investors had all but disappeared. "We had no one to hand our investments off to," he says. "This process is a food chain. And suddenly there was a missing link."

Venture capitalists, ready to do early-stage deals again, will reappear and reforge that missing link, Morley predicts. The average annual return on the top quartile of U.S. venture capital over the past two decades was 29.3%, according to Venture Economics Investor Services. That, Morley notes, offers ample investment incentive. "The recession will someday end, companies will again be healthier, and investors will look for places to get a higher return on their money," he says. "Venture capital has been proven to be one of the best vehicles to do that." The process that Morley describes is the deinstitutionalization of investing, whereby angels and other nonconventional investors who create companies will be on a much more equal footing with the New York City pension-fund managers. "In the next five years venture capital—*not* investment banking—will be resurrected," he predicts.

THE PRIVATE EQUITY MARKET

Money will find less conventional—and eventually more liquid—forms of investment

The rise in small-cap stocks and the resurgence of venture capital offer signs of the renewed flexibility in the financial markets to which Dick Morley alludes. Money will again search out less conventional—and seemingly less liquid—forms of investment. One universe money will move into is that of small, private, low-tech companies laboring quietly in the backwaters of the economy, heretofore ignored by mainstream investors. Those companies are not just overlooked; they're undervalued, says Stanley E. Pratt, managing partner at Abbott Capital Management, in Needham, Mass.

"I think we're about to tap into the enormous potential of private companies," Pratt says. He labels the process "controlled investment" as opposed to the sort of less controllable investment that often results when a small company meets the shifting moods of the public stock markets. Pratt sees a parallel stock market arising in the private sector, offering the best of both worlds: planned liquidity for investors and, for management, a buffer from the short-term pressures of the public market's caprice. Management in those small companies—newly infused with outside capital—will have the time, money, and peace of mind to devise long-range plans and build equity that won't get clobbered with the first quarter that turns down, he says.

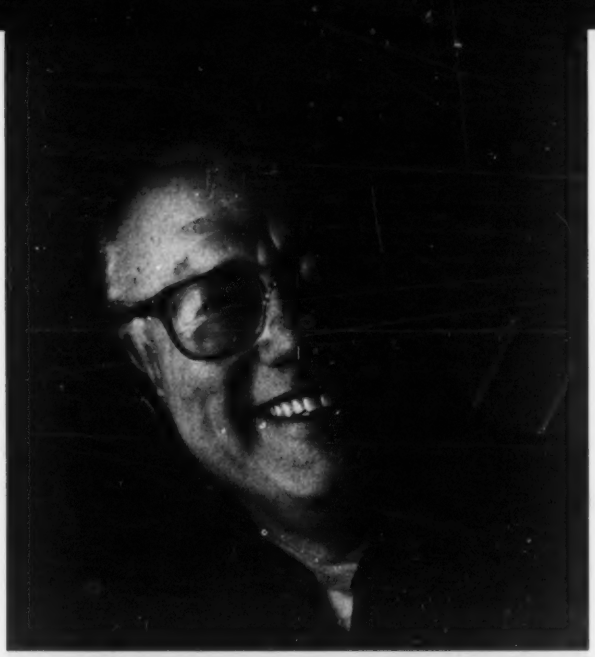
Yet an exit will exist, keeping investors and managers motivated to keep return on investment high. In fact, Pratt argues, the exit options will be varied enough to provide increased financial flexibility. "After a few years you can bring in new investors and take out the old," he says. Alternatively, investors could take the company public for a while and cash out some of their gains before going private again to recapitalize and plan for the next phase of growth.

The money to do such private-equity deals is definitely there, Pratt says. The pool of private-equity partnerships in the United States currently totals about $71.5 billion. The sum seems huge, but it could one day be greater. Pension-fund investments in the largest 3,000 U.S. public companies amount to $2.5 trillion. As money migrates to the highest returns, Pratt believes that even huge pension funds, currently constrained by fiduciary responsibilities to invest in large, liquid companies, will break off chunks of capital and find ways to work them into more niche markets.

Finding targets for that money will be no problem. Pratt recently searched a database of all The Dun & Bradstreet Corp. companies in the United States and found 133,000 with annual revenues of more than $10 million, and 117,000 of those were private. At the low end of the scale, he found 82,000 companies in the $10-million-to-$25-million range—and 77,000 of those were private.

Steven P. Galante, publisher of *The Private Equity Analyst*, a newsletter that tracks private-equity investment, echoes Pratt. "Right now there's a strange dichotomy between the valuations in the private market, which are very fair, and the companies that are being funded in the stock market at high valuations." As more venture investors exit their current deals at favorable valuations—which then translate to the private

PHOTOGRAPH: MILLICENT HARVEY



Morley: 'The recession will someday end, and investors will look to venture capital as a place to get a higher return on their money.'

market—greater parity between the two is likely, Galante says.

Stanley Pratt states the case more forcefully—and from a different perspective. "Smaller businesses have always had the potential to be more effectively managed," he adds. "Now we are finding ways to create operating and strategic partnerships to bring that about."

THE SMALL COMPANY

Flat, fast, and here to stay, small businesses will become still more prominent

The quality of the IPO market is far higher this time around than during the big boom of the early '80s, Pratt asserts. "At this point 70% of the companies that went public in 1991 are higher than their IPO price," he says. "By June of 1984 only 20% of the companies that went public in 1983 were higher than their IPO prices. A lot of quality companies are coming public now." Pratt sees such quality as a harbinger that small companies have value for intrinsic, not just psychological, reasons. In short, the market is saying that small companies will become more permanent—and more prominent—fixtures on the economic landscape than currently imagined.

That notion is borne out by the research of Steven Davis, who teaches business economics at the Graduate School of Business at the University of Chicago. Small companies have in fact had a greater role to play since 1970, when large U.S. corporations began to shrink their payrolls, he says. "Two fundamental trends over the past 20 years have made small businesses more important," he says. First, the shift from manufacturing to services has created a constellation of suppliers to larger companies. Second, the globalization of the economy has forced U.S. manufacturers to produce goods of higher value with fewer, better-trained, and better-paid workers.

That has led not only to the breakup of large companies into smaller units, but also to the creation of companies that need to remain small and flexible to survive.

Staying small and flexible is now possible because the increasing affordability and access to computer technology has given small companies a competitive advantage they previously lacked, says Bill Bygrave of Babson College. "Twenty years ago the only companies that could afford technology were big companies like Sears and General Motors. Now the smallest company can put in a powerful computer system cheaply."

The cost of computer technology will continue to tumble, allowing smaller companies to achieve the leverage and results of larger organizations, without the bureaucracy, Bygrave says. That will give rise to more and more organizations oriented around what he calls the four Fs: flat, fast, focused, and flexible. "The notion of scale economies will be overthrown in the 1990s," he says.

Support for Bygrave's conclusion can be found in the growing efforts by large companies to develop networks of small and agile suppliers. As large companies endeavor to do more business with small ones, the contributions of the latter will become more legitimate and valued.

STRATEGIC PARTNERING

Eager big companies will become a growing source of patient development capital

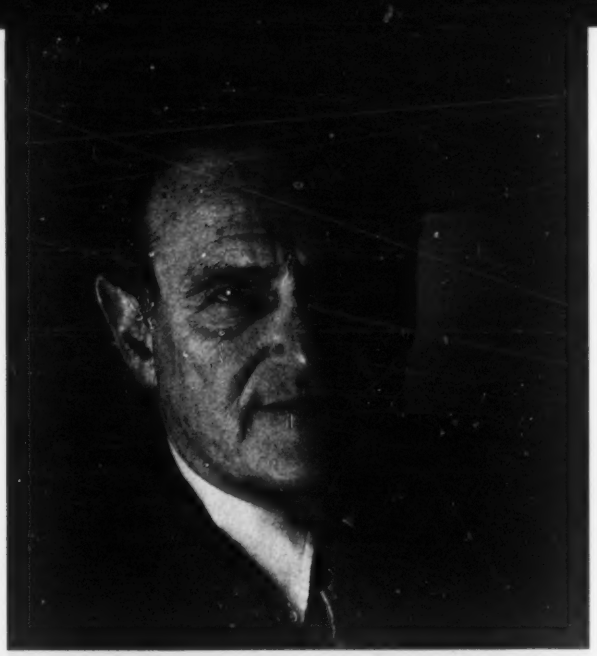
Bill Bygrave likes to makes a distinction between the words *innovative* and *entrepreneurial.* Many large companies, plowing large sums into research and development, are plenty innovative. They are not, however, very entrepreneurial, by which he means "in touch with the market." They do not know how to cash in on their innovation effectively. Big companies increasingly are moving to rectify this weakness. For example, in 1991 IBM entered into at least a dozen separate strategic alliances with software companies from Apple Computer Inc. on down.

The need of big companies to form joint ventures with small companies will only grow, says Edward Roberts, a technology-management professor at the Massachusetts Institute of Technology Sloan School of Management. He gives two related reasons. First, the rapid pace of technological change confronts corporations with "an increasing number of technologies to be mastered." The most practical way to do that is to engage the skills of small, technology-based companies focused on niche markets. For example, Roberts recalls a former graduate student, now working as Microsoft Corp.'s product manager for pen-based technology, who recently stopped by to see him on a visit to Boston—he was in the midst of calling on the *seven* companies in the area with which Microsoft has joint-venture agreements. Second, Roberts says, large companies in a competitive global economy realize they must return to their "core competencies." They must focus. That heightens the need to rely on small suppliers.

The resulting benefits for small companies are considerable. They gain improved access to a steady stream of patient development capital. They gain access to channels of distribution that are often global in scope.

Roberts sits on the board of one such small player, Advanced

PHOTOGRAPH: MILLICENT HARVEY



Pratt: 'Smaller businesses have always had the potential to be more effectively managed. Now we're finding ways to do it.'

Magnetics Inc., which develops contrast agents that are used in magnetic-resonance imaging of the body. Annual sales total a little more than $12 million, yet "much of the board's time is spent discussing alliances with large companies," Roberts notes. For good reason. Advanced Magnetics currently has strategic alliances with six major pharmaceutical companies on three continents.

Big companies search out small ones for one basic reason, believes Advanced Magnetics CEO Jerry Goldstein: they are more innovative. Beyond that, the leverage for big companies is huge. Last year Bristol-Myers Squibb Co. entered into an $11-million transaction with Advanced Magnetics, developing products targeted at billion-dollar markets. "Bristol-Myers is a $10-billion company," says Goldstein. "To it, $10 million is inventory breakage." For these reasons, Goldstein sees strategic partnering as "absolutely increasing" in the years ahead. As an example, he cites Sandoz Corp., the Swiss pharmaceutical giant, which budgeted $1 billion for strategic alliances with small biotechnology companies.

A network of strategic alliances will also proliferate in all industries and for more down-to-earth reasons, asserts Paul Reynolds of Marquette University. Some of those reasons include the improvement in communication systems, the rebuilding of the infrastructure, and the institutionalization of just-in-time manufacturing. "All those factors make it easier for large companies to create linkages with outside suppliers."

That jibes with the model that James Womack envisions. Womack is an MIT researcher and coauthor of *The Machine That Changed the World*, a book that chronicled the rise of the top Japanese car companies through their use of lean manufacturing techniques. Large, vertically integrated companies such as GM have failed, Womack asserts, "because you can't replicate the market's discipline inside a bureaucracy." By the same token, Womack considers the vision of the lone entrepreneur trying to compete in a global economy as "naïve and romantic." Womack argues for a "shared destiny" between large U.S. companies and their small suppliers in which information—particularly concerning costs and technical know-how—is exchanged more freely. That will result in greater trust and sense of mutual dependence—critical factors in a world where the United States, in the aftermath of the Cold War, must now project economic, not military, power. "We're now living in a commercial world, not a geopolitical one," says Womack. "Big and small companies need to work together in a more dynamic fashion."

THE ENTREPRENEURIAL ALTERNATIVE

Starting your own company is becoming a more viable career path

Between 1980 and 1990 the *Fortune 500* companies shed some 3.5 million jobs. Yet the economy in that time created some 23 million jobs. "In the United States there's a real driving force for people to get started in their own businesses," says Bruce Kirchhoff, who studies business formation at Fairleigh Dickinson University. In fact, even during the depths of the 1981–82 recession U.S. businesspeople were starting companies at a healthy clip. "Americans seem to form businesses no matter what," Kirchhoff says. "People chug along. The human driving force is stronger than the economy."

In the years ahead economic reality may well hasten the need for people to keep on chugging. As Paul Reynolds points out, "For large companies now, their biggest fixed investment is not plant but people." Translation: big companies will continue to shed jobs.

And the people who lose those jobs will consider becoming entrepreneurs more seriously than ever. Rick Burnes, a venture capitalist who sees entrepreneurs coming out of larger companies, adds, "People are more willing to take risks because so many theoretically stable companies are now not so stable. Going out on your own and starting a company is becoming a more viable career path."

Meanwhile, Paul Reynolds notes, "about one in five U.S. businesses is created or destroyed every year. That's one in eight jobs offered by private-sector employers. The evidence shows that is just part of life in a dynamic economy."

A healthful by-product of dynamic growth, however, is more than just new jobs and vibrant companies. It is also a fresh perspective. As old contracts—lifetime corporate employment, say—wither away, new ones are forged.

Dick Morley, the angel investor, sees a return to investing at the grass-roots level as more than evidence of the economic principle of money chasing the highest return. It also reflects an increased awareness of where that money is going. "Venture capital has historically failed when it becomes a totally financial game," says Morley, who believes the game is changing for the good. "What we do is return some funds to the community. A union pension fund that ends up investing in a small start-up wants to create jobs, not just move them around."

Then he adds one last thought: "Besides, this is also fun." ❑

—Edward O. Welles

PHOTOGRAPH: MILLICENT HARVEY

THE YEAR IN IPOS

Investors flock, capital flows, and records fall. Initial public offerings are back

BY ROBERT A. MAMIS

THE INITIAL PUBLIC OFFERING window, where humble private businesses sell overvalued slices of ownership to hopeful investors, was shut so tight in early 1991 that it seemed more productive to apply to lenders than to underwriters for financing. In the first three months of 1991 a mere 35 IPOs entered the public market—a drizzle that, had it continued, would have turned the year into the worst climate for new public companies since 1982.

Fortunately for investment bankers, venture capitalists, and locked-in founders, the pace grew hotter with the weather—and the stock market. In June alone there were 48 IPOs, and by calendar's end, with the Standard and Poor's 500 stock index up a rare 26%, 1991 had sired 395 public corporations, including 63 purely capital entities, such as mutual funds, financial institutions, and blind pools. While the total lagged behind a couple of brisker years, the dollar amount they raised—$24.8 billion—was Wall Street's highest yet, exceeding second-place 1987 by more than half a billion. The average flotation, $42.7 million, also set a new-issue record, asserting that there are plenty of hard-spending risk takers out there, even without a change in the capital-gains tax.

Granted, among the major beneficiaries of the spending spree were more than a dozen leveraged buyouts. These once-public companies had been taken private in the 1980s, when junk bonds were the craze, and were now returning to the public arena with their tails between their legs. More significantly, however, 1991's massive IPO financing trickled substantially into the coffers of small companies, providing even such incomeless operations as biotechnologists and research-and-development outfits with enough patient backing to give profit making the old college try.

Debt-saddled LBOs seeking surcease through a return to the public equity market included huge Owens-Illinois, at $528 million the year's largest IPO; Duracell International, $366 million; and York International, $184 million. Not to be outdone by the Stop & Shop chain's public reappearance with a $170-million offering, two relatively small food dispensers went public for the first time: Smart & Final, a warehouse grocery chain, with a $95-million offering, followed by Super Rite at $32.6 million.

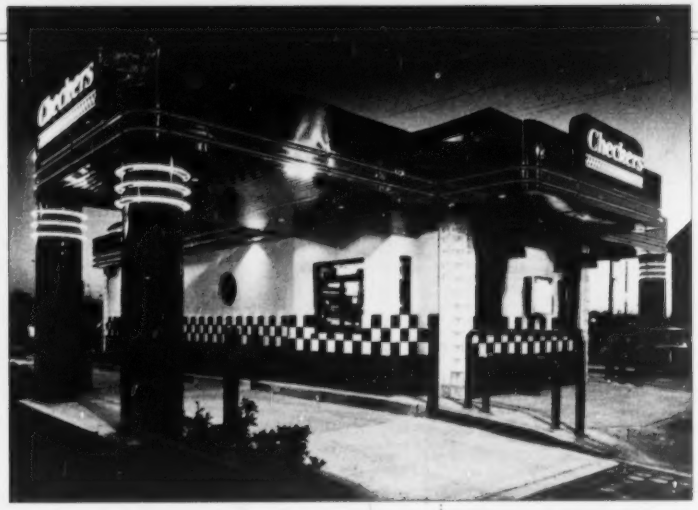
On sale as a factory reject was AnnTaylor Stores, whose since-banished CEO was being paid $2 million a year to oversee the 177 outlets' steady decline. An LBO spun out of Canada's bankrupt Campeau Corp., AnnTaylor marketed its IPO stock better than its fashionable off-the-rack stock: seven and a half months after the successful flotation the price per share had plunged 42%. Retail liquidator Filene's Basement was a similar but far less defective piece of returned merchandise. Freed by way of a public offering from the ham-handed folks upstairs at Federated Department Stores, its stock more than doubled in eight months.

At least part of the difference between the two retailers was that the year's economic frame of mind favored operations that proffered basic goods at basic prices. The frugality of The Basement echoed the turn-of-the-century theme of Montgomery Ward, J. C. Penney, Sears Roebuck, and the like—all merchandisers that have grown too cumbersome to adapt that theme to the consumer climate at the end of this century. In their place 23 small retailers boldly went public in 1991, many of them delivering double-digit stock-market returns before year end. Among them, Rag Shops (a June IPO) gained 80%; Goody's Family Clothing (October), 77%; and December IPO Sam & Libby returned 36% in only 28 days.

All this—performed at the core of a shopper meltdown—added up to 21 apparel-manufacturing and -retailing enterprises going public. Demonstrating how times have changed, only one retail IPO, CompUSA, sells computers. After a decade-long trend that had electronics manufacturers at the front of the parade, not one 1991 new issue makes a computer system.

The year 1991 documents that the repository of speculative capital has pretty much moved from junky garages to antiseptic laboratories. Strongly outpacing the 12% health-industry component of the 1990 gross national product, nearly 30% of the operating-company IPOs were involved with health products, instruments, or delivery. All of the first five IPOs out of 1991's

PHOTOGRAPH: C. LACROIX/GAMMA LIAISON



slow-to-open gate are health-related enterprises, as are 110 of the year's 395 IPOs.

Indeed, using only the products of 1991's medical and biological issues, you could just about construct an entire body, adapting such components as Somatogen's blood substitutes, Danek Group's spinal implants, Osteotek's bones, and Mitek Surgical Products bone connectors. If in the end it didn't tick, you could turn to Stewart Enterprises' death-care services.

Of that array of medical and biological entities, four companies concentrate on the betterment of beasts rather than humans. Deprenyl Animal Health, public last March, makes veterinary pharmaceuticals. BallistiVet markets a system to implant pharmaceutical "biobullets" in livestock. A third, Veterinary Centers of America, conducted its dog-and-pony shows in October.

Further defining a marketing trend toward the promotion of animals' well-being, the products of bioscience lab Embrex are designed to help raise healthier chickens.

One of the year's largest IPO fundings went not toward saving lives but toward smearing them. Raising $151.2 million, The Enquirer/Star Group, publishers of checkout-stand reading material, came out in July. To handle its products and other detritus, four companies involved in waste management and environmental cleanup also went public in 1991.

Some businesses wash the hands of others, neatly fulfilling the free market's get-you-coming-and-going tradition. Even as Saratoga Brands deep-fries potato chips, and Suprema Specialties concocts gourmet cheeses, Jenny Craig's weight-loss centers trim the fat off the land. And as Candy's Tortilla Factory pounds out corn pancakes, and Interstate Bakeries devise succulent pastries, Bio-Dyne assembles exercise equipment.

Food definitely was big in 1991. A pair of peanut processors also contribute to the common girth: Jimbo's Jumbos and John B. Sanfilippo & Son. With fare ranging from IHOP's waffles to Bertucci's pizzas, a platter of eight eatery chains mold yet more clients for the shape-up industry. But investors found the most piquant restaurant recipe had more to do with its delivery than its cuisine. Checkers Drive-In Restaurants dispense hamburgers from a central modular kitchen. Nothing new there, except that not only are there no tables inside a Checkers, there's hardly an inside at all—just enough to support one walk-up and two drive-through windows per site. The high-margin, low-dawdle concept boosted franchisor Checkers's stock from its November offering at $16.00 to a year-end close of $27.50.

Because 1990 had so unnerved venture capitalists and investment bankers, 1991's

Not only are there no tables inside a Checkers Drive-In, there's hardly an inside at all—just enough for three takeout windows.

Sports Heroes, Megacards, and Sports Media exploit adulation of top pro athletes.

The products of bioscience lab Embrex are designed to help raise healthier chickens.

Despite a shopper meltdown, 21 clothing companies went public in 1991 (opposite page).

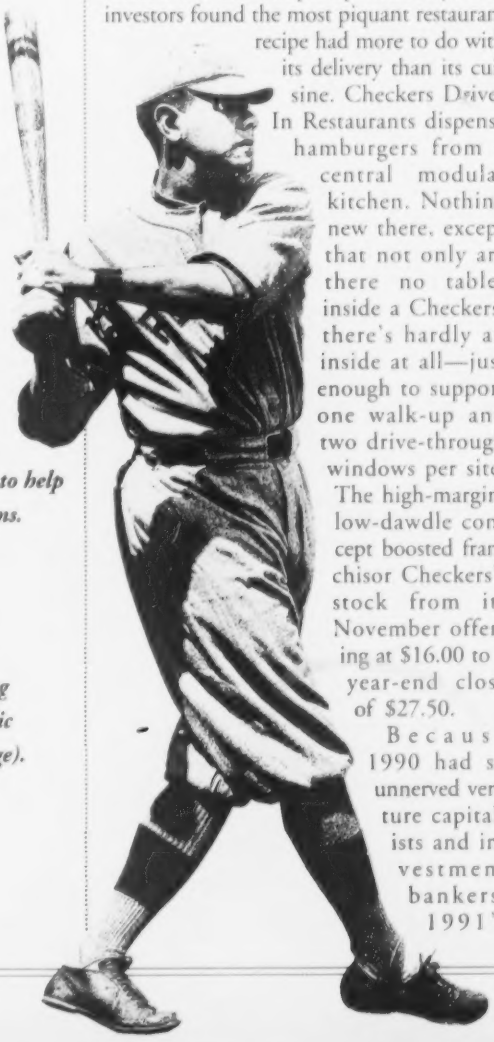
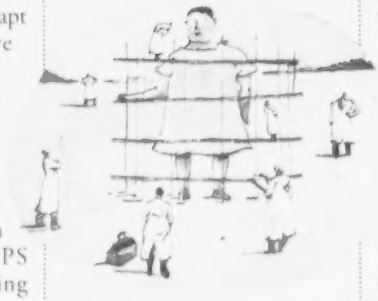


ILLUSTRATION: BARRY BLITT

deals tended to be more reasonably priced than IPO avarice generally allows. As modest but welcome proof, 12 issues leapt 50% or better as soon as they were released from the underwriting syndicate. The leading first-trading-day gap was chalked up by a manufacturer of product-safety tests. Ropak Laboratories' offering was bid on the open market at 122% the IPO price. The next 11: Alteon, an R&D company in diabetes drug therapy, up 92%; IPS Health Care and Healthcare Imaging Systems, both in magnetic-resonance imaging services, up 88% and 70%, respectively; Megacards, publishers of sports memorabilia, up 70%; Cybernetics Products, a manufacturer of tools and equipment for the electronics industry, up 67%; Medical Marketing Group, a licenser of pharmaceutical-marketing programs, up 66%; Sepracor, a manufacturer of pharmaceutical compounds, up 55%; Grand Casinos, a developer and manager of gambling facilities on native American reservations, up 55%; Mitek Surgical Products, a supplier of implants, up 55%; Licon International, a maker of industrial-waste-cleanup equipment, up 53%; and Seismed Instruments, a manufacturer of cardiology instruments, up 50%.



Using only the products of 1991's biological issues, you could just about construct an entire body.

Valley Systems, an industrial-cleaning service, enjoyed the year's largest stock gain—it nearly quintupled its IPO price.

Old-time marketers hold that a sudden strong move in a stock is soon followed by another strong move. On balance, however, the dozen fast starters just described gainsay that assumption. Despite the steady advance in the secondary-stock market overall—the NASDAQ Composite Index was up 57% for the year—8 of those early movers subsequently eased from their first-trade heights. Three actually ended the year even lower than their IPO prices. Only 4 of the top 12 kept climbing.

The number of companies simultaneously going public and earning a place on the *Inc.* 100 (see chart on page 118) was disproportionately plentiful in 1991—more than twice the norm. Oddly, of the 19 IPOs that demonstrated sufficient revenue growth to make the list, 9 are computer related. By contrast, there was no biotech company, fast fooder, retailer, or apparel manufacturer.

Apparently, brisk revenue growth counts for little when it comes to aftermarket IPO investment. Only 3 of the *Inc.* 100's IPOs are among the 38 IPOs whose stock doubled or more by December 31: Value Health, Quarterdeck Office Systems, and Mitek Surgical Products. Was it profitability that counted? Hardly. Whereas Quarterdeck's prospectus paints a rosy five-year history of uninterrupted earnings growth, Mitek's shows a dreary pattern of losses.

The average deal, whose average share cost $11.43, gained 30% over its offering price by December 31. Just 9 were reduced by more than half in the aftermarket. Valley Systems, an industrial-cleaning service with $14.9 million in revenues in 1990, enjoyed the year's largest increment, nearly quintupling its offering price. In second place, with a gain of 373%, was MedImmune, a developer, manufacturer, and marketer of vaccines. The perennially profitless corporation lost $4.1 million on 1990 sales of $3.3 million. Such is the magic of raising capital through a public offering: try getting a banker to lend you $23 million—the sum MedImmune fetched in its IPO—with a history of no earnings.

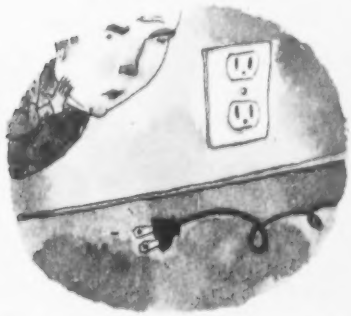
As always in young-company IPOs, it was buyer beware. Hardly had six-year-old Ropak Laboratories traded at more than double its offering price when it released first-quarter results. Unfortunately for its high-flying stock, those results showed a loss of $907,000 on revenues of $281,000. Ropak Labs' stock wilted. Was the loss sneaked in under cover of IPO by management or an underwriter in an attempt to mislead investors? Not at

ILLUSTRATION: BARRY BLITT; PHOTOGRAPH: THE BETTMAN ARCHIVE

all. As the Securities and Exchange Commission requires, the offering prospectus had diligently disclosed—to the few who bothered to read it—all that was known about the company at the time, including the probability of the upcoming debit, due to a onetime write-off. Of course, the company probably could have taken the write-off prior to the offering. But then it might not have raised as much capital to absorb it.

Like the contents of a time capsule, a sampling of 1991 offerings vividly portray U.S. culture toward the century's end.

□ Video Lottery Technologies, which manufactures video-game terminals that are installed in bars and then shares revenues with the government, raised $39.9 million. Advanced Promotion Technologies, which designs and markets



video-screen advertising at supermarket-checkout counters, raised $18 million.

□ Ezcorp, which operates pawn shops, raised $24.4 million. First Cash, which also operates pawn shops, raised $4.5 million. The Money Store, which makes personal loans, raised $35.2 million. World Acceptance, which makes consumer loans, raised $21 million. Credit Depot, which extends high-risk loans, raised $3.9 million.

□ Marvel Entertainment Group, North America's largest creator and publisher of comic books, featuring Captain America, among others, raised $69.3 million.

□ Sports Heroes, Megacards, and Sports Media all exploit adulation of top professional athletes, who, by the way, sign contracts worth more than any of those companies was able to raise—$4.5 million, $4.1 million, and $3.8 million, respectively.

□ Insurance Auto Auctions, which buys totaled cars from insurers and resells

Marvel Entertainment Group, North America's largest creator and publisher of comic books, raised $69.3 million.

After a decade of electronics manufacturers leading the parade, not one 1991 IPO makes a computer system.

them, raised $22.9 million. Custom Chrome, which manufactures and distributes parts for Harley-Davidson motorcycles, raised $25 million.

□ Koo Koo Roo, which franchises fast-food dining, raised $6.3 million. Sonic, which franchises *really* fast-food dining, raised $46.3 million. The aforementioned Checkers Drive-In Restaurants, which franchises fast-as-you-can-motor-through-them dining, raised $33.6 million.

□ Restor Industries, which repairs pay telephones, raised $5.3 million.

Even a railroad, Wisconsin Central Transportation, managed to sell itself into the public market in 1991. The carrier proved that 1991's IPO window opened plenty wide for those prepared to chug on through. The many private companies wary of Wall Street's promise of easy money might do well to observe that the slightest amount of money raised by an operating company in a 1991 IPO was a hefty $2 million by Lancit Media Productions, a very small-cap producer of television projects. Lancit stock came out at $1.50 in June and ended the year at $4.00. In six months its owners had become 167% richer.

Still want to keep trying your banker? ❑

This article is based in part on data supplied by IDD Information Services, in New York City.

1991's Most Active Managers

The role—and income, at 10% or so of gross—of investment banking was revivified in 1991. The 10 underwriters bringing the most IPO deals to market:

Firm	*Number of deals*	*Total ($ million)*	*Average raised ($ million)*
1. ALEX. BROWN & SONS	38	$5,948	$157
2. MERRILL LYNCH	21	3,682	175
3. GOLDMAN, SACHS	21	2,869	137
4. FIRST BOSTON	20	1,631	82
5. PAINEWEBBER	19	961	51
6. SHEARSON LEHMAN BROS.	17	1,598	94
7. MONTGOMERY SECURITIES	15	446	30
8. MORGAN STANLEY	13	1,173	90
9. SMITH BARNEY, HARRIS UPHAM	13	369	28
10. ROBERTSON, STEPHENS	13	350	27
TOP 10 TOTALS	190	$19,027	
TOTALS FOR ALL IPOs	395	$24,843	

ILLUSTRATION: BARRY BLITT

TRADE SHOWS

Stretching the Trade-Show Budget

MEASURING THE SALES RETURN ON TRADE SHOWS IS A TRICKY business; you can't always trace sales back to the show. You can, however, stretch your marketing dollars by targeting your efforts before the big event:

• **Contact prospects before the show.** Margaret Rodenberg decided to forgo a booth altogether in favor of a preshow campaign. Rodenberg, head of sales and marketing at Viteq, a maker of computer-power supplies in Lanham, Md., banked the $80,000 she would have spent. Instead, weeks before the show, she sent 180 prospects a catchy direct-mail piece—a box in a box—that cleverly packaged product literature, a sample, and a card to send in to receive a premium.

"It's a jaded market, and we knew that just sending a number 10 envelope wasn't going to make it." While 22 people responded, all 180 got calls from Viteq's regional sales managers, who further qualified prospects and set up 27 appointments at the show. Within four months Viteq closed long-term deals worth $130,000 with 8 of the people. The cost, from direct mail to hotel limo service: less than $12,000.

• **Know your goals going in.** Callaway Golf wanted to introduce its new club, Big Bertha, and position itself as a big player before the widest possible audience of buyers. So during the 1991 PGA show in Orlando, the Carlsbad, Calif., company bought a full-page ad in the Southeast edition of the *Wall Street Journal*, extolling the virtues of Big Bertha. The paper, with a sticker on the front page directing readers to the ad, was delivered to attendees' hotel doors. "The entire golf world was sitting in one town, and half the people thought we did the ad nationally," says CEO Ely Callaway. The $12,000 black-and-white ad went a long way toward helping the company more than double its sales in 1991, to $54 million.

—S. G. and Tom Richman

BENCHMARK

Trade Shows Versus Face-to-Face Selling

Compared with the ever-rising cost of a sales call, trade shows still appear to be a relatively cheap way to reach potential customers — provided you've selected the right show (see "Trade-Show Stoppers," at right) and kept your total exhibit costs under control. If you're spending more than $142 per trade-show prospect, you may be spending too much, warns Richard Swandby, president of Exhibit Surveys, which polls some 18,000 attendees of 60 trade shows each year.

Swandby has found that the "exhibit cost per visitor reached" (how much it costs to reach the people who visit a booth and express interest in the product) remains the same for exhibitors from both small and large companies. How many visitors can you expect? On average, 16% of any trade-show audience may be interested in your product, says Swandby. However, an effective preshow promotion (see "Stretching the Trade-Show Budget," above) can increase traffic at your booth by as much as 33%, according to the Trade Show Bureau, in Denver.

Source: †McGraw-Hill Research, New York City; ††Exhibit Surveys Inc., Middletown, N.J.; *Cahners Advertising Research, Newton, Mass.

CHART: ROSS CULBERT LAVERY & RUSSMAN INC., NEW YORK

RESOURCES

Trade-Show Stoppers

Here are two practical guides to help you plan your next trade-show campaign:

• **Trade Show Marketing Idea Kit.** Free 50-page booklet from a trade-show-display company. Includes worksheets for budgeting, tracking sales, and measuring results; and articles on selecting the right show and designing the ideal lead card. To order the booklet, call Skyline Displays, in Burnsville, Minn., 800-328-2725. Or request by fax, 612-895-6318.

• **Twenty Proven Techniques for Generating More High Quality Show Leads.** Free 2-page tip sheet from consulting firm the Mac McIntosh Co., at 800-944-5553. *—S. G.*

DISTRIBUTION

The CEO As Sales Rep

SHARON SCHNEIDER, FOUNDER of Schneider Educational Products, in San Francisco, was losing money even as she hired more sales reps for her line of finger-puppet books for preschoolers. Just as distressing, she hardly recognized the business she had started in late 1989 with two young children in tow and a desire to "make a contribution in a tangible way."

To their credit, the sales reps she'd used for a year got her books into some 1,000 independent bookstores. But then, says Schneider, "I realized that was crazy. I had major problems getting paid by the bookstores. And when you deal with rep groups, you may know only a couple of people in the organization. When you don't know which people are selling your stuff, you don't know if they're selling to the wrong places. Finally I thought, I've just got to do it myself." Early last year she dropped all 45 sales reps and took sales and distribution into her own hands.

While sales reps make sense for some young companies, going it alone paid off for Schneider, who employs just one part-time worker. It forced her to focus her selling efforts. She decided to concentrate on museum and aquarium stores because of their initial interest, the potential market (museums host upwards of a million visitors a year), and scant competition.

"Once I started to move in that direction, it felt good in a lot of ways. When I called people to ask if our new Ocean Magic books were doing well or not, I got reasons that made sense to me. And they were more open to suggestions."

Schneider's new focus also freed her to slowly pursue a variety of distribution channels. In a year's time she placed her products in Walt Disney's Epcot Center store and several teachers' and book-club catalogs. Ultimately, national bookseller B. Dalton agreed to test her books in 300 stores.

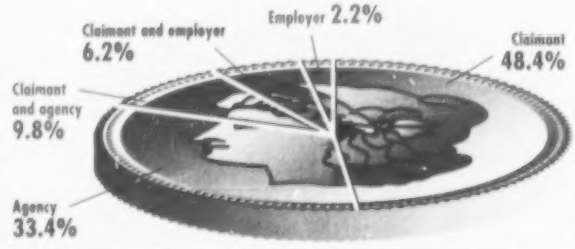
While Schneider has traded faster sales growth for her independence, getting paid on time is no longer an issue. The company is running in the black. Sales doubled in 1991, to $100,000, and Schneider expects sales to double again this year.

"I was afraid that some people wouldn't deal directly with me, but if your product's good for them, they'll make exceptions." *—S. G.*

BENCHMARK

Who's at Fault for Unemployment Overpayments?

The Department of Labor's Quality Control report for 1990 shows that, for the most part, employers aren't to blame for unemployment-insurance overpayments. (See "The Hidden Cost of Firing," below.) Claimants and the state unemployment agencies are most often at fault, according to the judgment of the quality-control investigators. That suggests that companies would do well to monitor their agency and to advise terminated employees about their eligibility for unemployment-insurance benefits.



Source: Department of Labor Quality Control 1990 Annual Report, Washington, D.C.

WORK FORCE

The Hidden Cost of Firing

EVERY TERMINATED EMployee who files a claim for unemployment insurance causes your unemployment-insurance rate to rise. That's acceptable if the claim is appropriate. But all too often, it's not.

Charlie Christopher, owner of Christopher's, a restaurant in Cambridge, Mass., recalls the worker who walked out one day, never to return. Another admitted to stealing $6,000. Both filed claims to collect unemployment insurance. "It's not fair to the system or to me," complains Christopher.

The system *is* often abused. The Department of Labor reports that states overpaid claimants $1.3 billion in 1990. That means employers were charged too much. And those overpayments translate into higher taxes.

The worst offenders: Alabama, Arizona, Indiana, and New Jersey, which overpaid 16% to 19.3% of the dollars they doled out. Employers aren't responsible for most of these errors. (See chart, above.) Your best defense against being overcharged is eternal vigilance over your local unemployment-tax office and, to the extent possible, over terminated employees. Call your local unemployment-tax office to request details on claims made and the calculation of your tax rate. When employees depart, tell them if they are eligible for insurance and give them a copy of their attendance record.

You might consider hiring a company, as Christopher did, that will monitor and audit unemployment claims and tax rates. The Association of Unemployment Tax Organizations (614-224-7221) will send you a list of its members. —*E. E. S.*

LEGAL BRIEFS

Steps to Discourage Harassment

IF YOU WANT TO DISCOURAGE SEXUAL HARASSMENT IN YOUR company, consider following these routinely prescribed steps:

• **Adopt a sexual-harassment policy.** Make a personal statement to your employees before distributing the policy. Build it around your company's values and the Equal Employment Opportunity Commission's definition of harassment. (See box.) Promise that grievances will be quickly and thoroughly investigated. Explain the disciplinary measures to be taken against those who harass and those who bring false charges.

• **Provide employees with meaningful recourse.** Find two neutral yet powerful people to whom employees can bring grievances. The person in charge of the company is one natural choice. For the other, pick someone from inside the company or a close outside adviser. Or give employees the option of complaining to the EEOC.

• **Investigate promptly.** Take all complaints seriously. That kind of action speaks louder than words to your employees, and it's also the best line of legal defense.

• **Take appropriate action.** Keep your policy's promise of disciplinary action, if appropriate. Above all, don't let the complaining employee feel he or she was treated perfunctorily.

"Unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature constitute sexual harassment when (1) submission to such conduct is made either explicitly or implicitly a term or condition of an individual's employment, (2) submission to or rejection of such conduct by an individual is used as the basis for employment decisions affecting such individual, or (3) such conduct has the purpose or effect of unreasonably interfering with an individual's work performance or creating an intimidating, hostile, or offensive working environment."

—EEOC's definition of sexual harassment

Education is crucial in understanding the disparity between the ways men and women view certain kinds of behavior. (See this month's FaxPoll, "What Are You Doing About Sexual Harassment?" page 23.) Consider joining with other small companies to hire a training consultant. Or educate with videos, by reading (see below), and through discussion. Above all, remember that your visible commitment must underpin your program if it's to be taken seriously. —*E. E. S.*

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RESOURCES

Sexual-Harassment Guides

If you're devising an education program, consider these resources:

"All the Wrong Moves: A Story of Sexual Harassment in the Workplace," a video produced by the Dartnell Corp. (800-621-5463; cost to rent, $140; to purchase, $495).

Sexual Harassment Manual for Managers and Supervisors, a 48-page booklet from Commerce Clearing House (800-248-3248; $12.50), is all you need to read to understand this knotty issue.

The EEOC's Sexual Harassment Package (202-663-4900; free) contains a fact sheet, the EEOC's lengthy guidelines for employers, and the guidelines for determining sexual discrimination. —*E. E. S.*

CHART: ROSS CULBERT LAVERY & RUSSMAN INC., NEW YORK

CASH FLOW

Getting Useful Financial Information

MILLROCK, A 12-YEAR-OLD, $5-million manufacturer of display racks and fixtures, was slow to recognize the need for financial controls. "We were growing so fast, we thought, Why bother?" recalls Martin Liebmann, president of the Sanford, Maine, company.

But when Millrock started losing money, Liebmann knew he could use better financial information. He hired Raleigh Minor, a vice-president of turnaround specialists Allomet Partners, in Savannah, Ga. "Minor emphasized that our business was suffering because management couldn't rely on financial controls and a reporting system," says Liebmann. "I recognized it would help if we could generate timely and accurate numbers. But I worried about becoming obsessed with financial minutiae."

Liebmann's anxieties are common. But financial-control systems can be tailored to the needs and corporate temperaments of all types of companies. (See Minor's five cardinal rules, far right.) Millrock set up a system that provides Liebmann with four essential details: (1) weekly accounts-receivable breakdowns, (2) weekly sales figures (compared with projections), (3) weekly inventory updates, and (4) monthly accounts-payable reports.

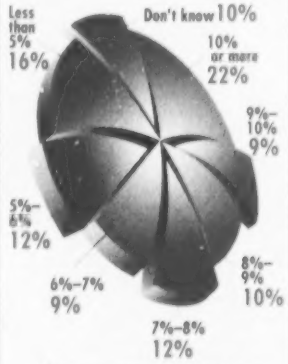
"The financial controls helped me understand the changes and flow of our business," says Liebmann. "Once again, we're back on target with growth and profitability." —*J. A. F.*

BENCHMARK

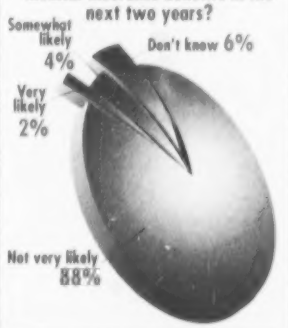
Insurance Costs and Commitments

Although medical-insurance costs add up to a hefty percentage of payroll costs, a recent survey of 1,825 growing companies, conducted by the accounting firm Grant Thornton, found that most intend to continue providing at least a basic level of coverage for their employees. That's impressive, given that surveyed companies reported average rate hikes of 18.3% last year alone. But it also reflects small businesses' realistic recognition that they need health insurance and other employee benefits to compete with large corporations for the best-qualified workers.

What percentage of total payroll costs does your company spend on medical insurance?



If costs continue to rise, how likely would you be to drop medical-insurance benefits in the next two years?



Source: Grant Thornton, "Managing Health Care Costs in the 1990s," Chicago 1991.
*Compiled from multiple answers.

FINANCIAL CONTROLS

The Five Cardinal Rules of Financial Controls

TURNAROUND SPECIALIST RALEIGH MINOR OF ALLOMET PARTners, in Savannah, Ga., is convinced that the failure to set up timely and relevant financial controls gets more growing companies into trouble than any other financial mistake does. Here, Minor's five rules for setting up financial controls:

1. Generate numbers quickly and accurately. For numbers to be relevant, Minor believes that growing businesses need to compile them no more than 10 working days after each month closes.

2. Establish different timetables for different numbers. All companies have to establish priorities about which numbers to monitor monthly and which to watch weekly. One example: you must pay close attention weekly to inventory accounting and actual numbers, but you should also make calculations and test their accuracy monthly. Growing companies should also track sales and receivables weekly.

3. Compare results with projections. "To make actual numbers really useful," says Minor, "you've got to know what expectations the company had and how those compare with actual results." Any number of forecasting strategies can mesh well with a financial-reporting system. Minor recommends that companies project for a six-week horizon and then set new projections at the four-week point.

4. Prioritize. Minor suggests developing a "Weekly Condition Report" that covers accounts-receivable information, including beginning balances, cash receipts, and credits; cash-position updates; recent sales; accounts-payable activities and outstanding obligations; order backlogs; detailed breakdowns of all cash disbursements; and current employment figures, including a sales-per-employee ratio. He recommends reporting those numbers in two columns, one showing management's most recent projections, and the other representing current realities.

5. Circulate financial reports to responsible managers. Although circulation lists will differ by company, Minor recommends that weekly and monthly updates be sent to the CEO, sales manager, controller or chief financial officer, and the operations or manufacturing manager, as well as other key personnel. —*J. A. F.*

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A SCHEDULE FOR TRACKING KEY RESULTS

Which numbers—and financial trends—should management be tracking, and how frequently? Raleigh Minor recommends the following blueprint:

Monthly updates on—

- **inventory** (including accounting or physical tests of accuracy);
- **accounts-receivable "average days outstanding"**;
- **accounts-payable obligations,** complete with an aging breakdown.

Weekly updates on—

- **current cash position,** as well as details about how much was received, when, and from whom;
- **cash disbursements,** broken down into as many specifics as possible—payroll, materials, purchasing, insurance, and so on;
- **new sales**;
- **accounts receivable**—breakdowns for beginning balances, outstanding credit, and cash receivables;
- **accounts-payable payments**;
- **order backlog**;
- **number of employees,** supplemented by various productivity calculations such as a sales-per-employee ratio. —*J. A. F.*

CHART: ROSS CULBERT LAVERY & RUSSMAN INC., NEW YORK

BUSINESS FOR SALE

WASHINGTON SKI MOUNTAIN

THE BUSINESS A 25-year-old ski resort, with 30 runs across 2,000 acres, on the sunny side of the Cascades—a two-and-a-half-hour drive from Seattle, and 12 miles from Wenatchee, Wash., the Apple-growing Capital of the World. Lift tickets account for 60% of revenues; the rest comes from food, a ski school, and ski rentals. The mountain relies mostly on natural snow and usually operates from December to April.

FINANCIAL SUMMARY

	1989	1990	1991
Gross revenues	$1.28 million	$1.03 million	$1.08 million
Recast earnings before interest, taxes, depreciation, and owner compensation	$27,500	($182,000)	($242,000)

PRICE Best offer

OUTLOOK Ski resorts today do well, say experts, to operate at 33% of capacity, and at the current seasonal pace of 57,000 skier visits, this mountain is in the 20% range—compared with 30%, three years ago. There are about half a dozen ski mountains closer to Seattle, but this one, by virtue of its Eastern Cascade location, boasts significantly more sunshine and fluffier, drier snow. One problem: the mountain has no lodging, and it needs it to become the kind of destination resort that can keep up with competitors. Current ownership is looking for a deep-pocketed buyer who will make the $6-million to $8-million investment necessary to effect the transformation.

PRICE RATIONALE Best offer, eh? Well, ski-mountain-valuation methods vary; insiders say skier-visit multiples start at $20 ($20 × 57,000 skiers = $1.1 million) and have exceeded $100 for trophy resorts. Cash-flow multiples typically range from five to eight. In any event, those models lose relevance when a mountain's on the skids and it's a buyer's "vision" (willingness to drop major coin for a possibly chimerical return) that counts. Shooting from the hip, the owners originally quoted $500,000 (plus assumption of $350,000 in long-term debt, plus investment promises), but they'll talk with anyone who'll pledge to preserve their mountain.

PROS Colossal growth potential in a very pretty part of the world. Possible motto: Driest Snow in the Northwest.

CONS Vision, when conjuring the future of a fixer-upper like this, is rarely 20/20. *—Alessandra Bianchi*

***Inc.* has no stake in the sale of the business featured.**
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